

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

VOL. I, NO. 4
April 1937

Foreign Agriculture

*..... a Review of Foreign
Farm Policy, Production,
and Trade*

Issued Monthly by
UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS

WASHINGTON, D. C.

C O N T E N T S

	Page
Agriculture in Manchuria - Possibilities for Expansion.....	157
New Zealand Agricultural Policy.....	183
Recent Developments in Foreign Agricultural Policy.....	201
German Land Ownership Legislation Tightened.....	201
France Guarantees Quality of French Wines.....	202
New Land Tenure Law in Colombia.....	203
Argentina Reduces Production of Wine Grapes.....	204
Some Recent Soviet Decrees Affecting Agriculture.....	205

- - - - -

AGRICULTURE IN MANCHURIA - POSSIBILITIES FOR EXPANSION

. . . By W. Ladejinsky*

Manchuria with its large undeveloped land areas is one of the last of the pioneer agricultural countries in the temperate zone. Development was retarded by the small population and the restrictive immigration policy which existed prior to 1900, but since that time the agricultural area has expanded considerably. Soybeans have proved to be especially adapted to Manchurian conditions and are the most important commercial crop. During the past several years, attempts have been made to increase the production of such crops as cotton, tobacco, and wheat. There are, however, definite limitations to the possibilities of increasing the production of these crops, of which the United States has in the past supplied large quantities to the Orient.

Manchuria is one of the younger agricultural regions, which bids fair to play an increasingly important role in the world's agricultural economy. Despite the occasional claim that Manchuria won the title of "the granary of Asia" centuries ago, this territory was a primitive, sparsely-settled agricultural and cattle grazing country until about the last decade of the nineteenth century. In the course of the last 40 years, however, and particularly during the third decade of this century, the agricultural development of Manchuria made such rapid strides that between 1919 and 1930 its cultivated area was doubled.

Two factors were responsible for this development: the removal of all official barriers to Chinese immigration into Manchuria toward the end of the nineteenth century, and the laying of a network of railways beginning after the turn of the century. At the present time, 24,000,000 persons, representing 84 percent of the total population, are engaged in the cultivation of 34,000,000 acres, or less than half the total arable land. Farming is geared to a world market, and in 1935 the value of agricultural exports, consisting of both raw and finished products, accounted for about 60 percent of Manchuria's total export trade.

* Assistant Agricultural Economist, Bureau of Agricultural Economics.

Views vary concerning the future of Manchuria as a field of agricultural activities. The uncultivated 42,000,000 acres and the presence of a large number of farmers willing to take up the land, augur well for the continuation of the progress made in recent years. It has been indicated in official quarters that the value of the annual agricultural crops of Manchuria will increase three-fold when the entire arable land has been placed under cultivation and the various improvements in the methods of cultivation have been brought about. The actual conditions, which are appraised in this article, seem to indicate, however, that the potential agricultural resources of Manchuria, while undeniably great, are somewhat overestimated. Much of the best land close to the old railroads and navigable rivers already has been put into use. The area of land awaiting exploitation is considerable, but its potential value is diminished by the fact that much of it is in the north and west, where the quality of vast tracts of this land is poorer than that of the Central Manchurian Plain. Furthermore, as one goes north the increasingly cold winters and decreasing rainfall raise serious problems.

Notwithstanding these limitations, Manchuria is still a pioneering region of expanding agriculture. The country's agricultural possibilities could hardly stand comparison with the great agricultural regions of North or South America, but its undeveloped area is considerably greater than those of any other country or section of northeastern Asia. In the production of some staples, such as soybeans for instance, Manchuria is second only to China and supplies around 90 percent of the beans entering international trade. In the contemplated expansion of Manchurian agriculture, emphasis is placed upon the increased production both of grains and technical crops. Regardless of the success of this program, Manchuria will undoubtedly continue to cater to some of the basic needs of the Far East and the Western World.

Topographical and Climatic Conditions

Manchuria, as referred to in this study, comprises the three northeastern Chinese Provinces of Heilungkiang, Kirin, and Liaoning, the Kwangtung Leased Territory, and Jehol, constituting an area estimated at 437,000 square miles, or about equal to the combined area of the Dakotas, Nebraska, Montana, and Wyoming. The entire territory is traversed by two large mountain ranges - the Khingans, Great and Little, in the northwestern and northeastern sections, and the Changpai mountains near the southeastern boundary. The most extensive area of level land between the mountain ranges, extending over the greater part of Northern Manchuria, the whole of Central Manchuria, and comprising the basin of the Liao River, constitutes the main agricultural area.

On the North, Manchuria is separated from Siberia by the Amur River; its eastern boundary between the Maritime Province of the Soviet Union and Chosen is formed by the Ussuri, Tumen, and Yalu Rivers; on the south,

Manchuria is touched by the Yellow Sea and the Gulf of Chihli; while on the west, China Proper and Eastern Inner Mongolia mark Manchuria's boundaries.

Climate temperate, rainfall light

Manchuria has a temperate continental climate, characterized by an extreme difference in temperature between summer and winter, low humidity, high evaporation, and relatively little rainfall. The winters in Manchuria are long, severe, and dry; the dryness becomes extreme in the spring, while terrific winds sweep in the "yellow dust" from the Mongolian desert. The summers are short, and generally hot and wet, while the usually dry autumn makes ideal weather for harvesting. In North Manchuria the average temperature in January, the coldest month, is 0° F, and the average for July, the hottest month, is 70° F. In South Manchuria the respective averages are 9° F and 75.5° F.

Manchuria is not endowed with an abundant rainfall; it averages around 20 inches annually, ranging from 26 inches in the south to 14 inches in the north. Yet the efficiency of the small volume of precipitation, from the point of view of Manchuria's chief staple crop, soybeans, is relatively high because of its distribution. The period from June through August constitutes the rainy season, in the course of which from 70 to 80 percent of the rainfall occurs. The unfailing summer rains insure a sufficient volume of moisture for late cereal crops. Even if early crops, such as wheat, sometimes suffer when the rains are late, such crops as soybeans and kaoliang are sufficiently insured against serious droughts. This may explain why Manchuria has never known an absolute crop failure.

The climatic conditions also impose some limitations upon Manchurian agriculture and particularly upon its future expansion. A great deal of land awaiting exploitation lies in the north, where the growing season is from 135 to 140 days, a period too short for a diversified agriculture. In some of the western sections of Manchuria the precipitation is so scant that the hazard of drought is always present. The soil conditions are favorable for a number of crops, but the success with soybeans, kaoliang, and millet, all late maturing crops, is related to the climatic conditions peculiar to Manchuria. The same climatic conditions make wheat and other early cereals uncertain crops, in view of the fact that the spring dryness is usually not broken until June.

Soils naturally fertile

Farming in Manchuria is confined to the Manchurian Plains, which extend over an area roughly estimated at 120,000 square miles. The

Plains are surrounded by mountains and hilly country on all sides, except for the narrow opening to the sea, in the South. The quality of the soil is not uniform. The black soils, rich in chemical and mineral matters, are to be found in the North; while brown soil, poorer in nitrogenous and organic matters, is centered in the South where farming has been practiced for a considerable time.

More specifically, in the southeastern sections, which include the basin of the Yalu River and the Liaotung Peninsula, the soil is sandy with a considerable mixture of gravel. The soil of some sections of the Manchurian Plain lying west of the railway between Mukden and Harbin is salty and of low productivity. In that part of the Southern Plain which comprises the entire basin of the Liao River, the best soils are formed by alluvial deposits, but periodic floods limit their usefulness to a certain extent. In general, however, this part of the Plain is well suited for agriculture. Practically the entire available land of this section has been put into use, with the result that the density of population in the entire southern section of the Plain is so great that it has become the source of migration to the central and northern sections of Manchuria.

The Central Plain is dominated by the main course of the Sungari River and it represents Manchuria's most fertile agricultural region. The rich soil on either side of the river became the center of the greatest agricultural "boom" in recent years. The most extensive area of land yet to be brought under cultivation is in the north, where the quality of the soil, while inferior to that of the Central Plain, is generally considered well suited for agricultural expansion.

Large areas undeveloped

The arable land of Manchuria is estimated at 76,000,000 acres or 35 percent of the total area. The land is far from being fully utilized since the cultivated area of 34,000,000 acres is only 45 percent of the total arable land. The land under crops has declined somewhat during the past 5 years, but prior to that period the acreage increased rapidly and doubled between 1919 and 1930.

The utilization of the arable land varies from region to region. In certain sections of South Manchuria the land resources have been fully exploited, while in others, such as the North Manchurian districts, land available for cultivation has been touched but little. In general, the extent to which land has been brought under cultivation depends upon the degree of colonization of the area, and it therefore diminishes northward and westward. The following table shows the area and distribution of land under cultivation, as well as the uncultivated land of Manchuria by provinces.

Land utilization in Manchuria, 1934

Province	Total area	Arable land						
		Total		Cultivated			Uncultivated	
		Area	Percent of total	Area	Percent of total	Percent of arable	Area	Percent of arable
	1,000 acres	1,000 acres	Percent	1,000 acres	Percent	Percent	1,000 acres	Percent
Lungkiang	29,855	19,387	64.9	4,789	15.9	24.5	14,638	75.5
Heiho...	27,135	2,645	9.7	125	.5	4.7	2,520	95.3
Sankiang	26,574	12,795	48.1	1,725	6.5	13.5	11,070	86.5
Pinkiang	35,440	16,122	45.5	8,409	23.7	52.2	7,713	47.8
Kirin...	22,217	11,063	49.8	7,203	32.4	65.1	3,860	34.9
Chientao	7,263	996	13.7	696	9.6	69.9	300	30.1
Antung..	11,917	1,246	10.5	994	8.3	79.8	252	20.2
Liaoning	21,139	7,567	35.5	6,158	29.1	81.4	1,409	13.6
Chinchow	9,751	2,584	26.5	2,455	25.2	95.0	129	5.0
Jehol...	23,866	1,890	7.9	1,590	6.7	84.1	300	15.9
Total.	215,157	76,295	35.5	34,104	15.9	44.7	42,191	55.3

Japan-Manchoukuo Year Book, 1937. pp. 838,839.

Date on land utilization indicate that in South Manchuria from 65 to 95 percent of the arable land already has been put to use. In many districts, particularly those favored with good transportation facilities, all the arable land is cultivated. In the Jehol province 84 percent of the cultivable land is tilled. Therefore, the future development of agriculture in South Manchuria lies not so much in the extension of the land under cultivation as in an increase in the productivity of the soil already being worked. The greater portion of the uncultivated land is to be found in the north, northwestern, and northeastern districts of Manchuria, where the percentage of arable to the total land available for cultivation ranges from 5 to 52 percent. Consequently, it would seem that the largest opportunities for future agricultural expansion in Manchuria are to be found mainly in the territory north of the line of the Chinese Eastern Railway. It is of importance to note in this connection that the land already under cultivation is superior to the area left for cultivation insofar as climatic and soil conditions are concerned. Approximately 25 percent of the undeveloped area is of a decidedly low quality, while the balance of the land is on the whole of average or above average quality.

Expansion Due to Railways and Immigration

The geographic position of Manchuria, the climatic conditions, and the quality of the soil were such as to make feasible the region's agricultural expansion. But the very rapid pace of this expansion which has

been taking place in recent years was due chiefly to the intensity of Chinese colonization and to the railways which gave impetus to it.

Until late in the nineteenth century Chinese penetration into Manchuria was greatly restricted by the Manchurian authorities. Nevertheless, the steady movement, although small in numbers, was sufficiently strong to overcome some of the obstacles. Over a period of almost 4 centuries, Chinese immigrants gradually succeeded in occupying the land suitable for cultivation in the southern section of the Manchurian Plains. By 1900, however, the central and northern sections of the Plains, where a large part of the good agricultural land is concentrated, were almost uninhabited. Settlement in these sections has been taking place rapidly since the close of the last century, during which period the Chinese immigration into Manchuria has assumed a mass character. The construction of the Chinese Eastern Railway by the Russians, followed by an agricultural and industrial development, facilitated and encouraged a more rapid colonization of Manchuria. At the same time, conditions in China Proper made it imperative for an ever-growing number to leave in search for new land. The recurring famines in China, agrarian overpopulation, heavy taxation, and ill-effects of civil war, as well as the adverse effect of a number of other social and economic factors to which farmers have been subjected in China, caused this flow of population into the wide open spaces of the Manchurian Plains. The peak was reached in the period 1927-1929 when more than 1,000,000 Chinese entered Manchuria each year. The Manchuria "incident" of September 1931, which eventually resulted in the separation of the region from China, caused a sharp decline in the number of immigrants. At the present time, the Government has embarked on a policy of controlling and restricting immigration into Manchuria.

Chinese immigration into Manchuria, 1923-1935

Year	Entering	Leaving	Net Gain
	<u>Number</u>	<u>Number</u>	<u>Number</u>
1923.....	433,689	286,761	146,928
1924.....	492,470	232,720	259,750
1925.....	523,770	214,547	318,223
1926.....	607,352	229,392	307,900
1927.....	1,159,747	316,549	843,198
1928.....	1,074,467	381,087	693,380
1929.....	1,046,291	601,392	444,899
1930.....	748,213	488,504	259,709
1931.....	467,402	461,339	6,063
1932.....	414,034	498,783	84,749
1933.....	618,962	497,246	121,716
1934.....	690,925	439,628	251,297
1935.....	519,552	495,009	24,543

Fifth Report on Progress in Manchuria to 1936.

Issued by the South Manchurian Railway Dairen, July 1936.



FIGURE 1.- MAP OF MANCHURIA.



FIGURE 2.- CHINESE IMMIGRANTS ARRIVING IN MANCHURIA.

COURTESY NATIONAL GEOGRAPHIC SOCIETY.

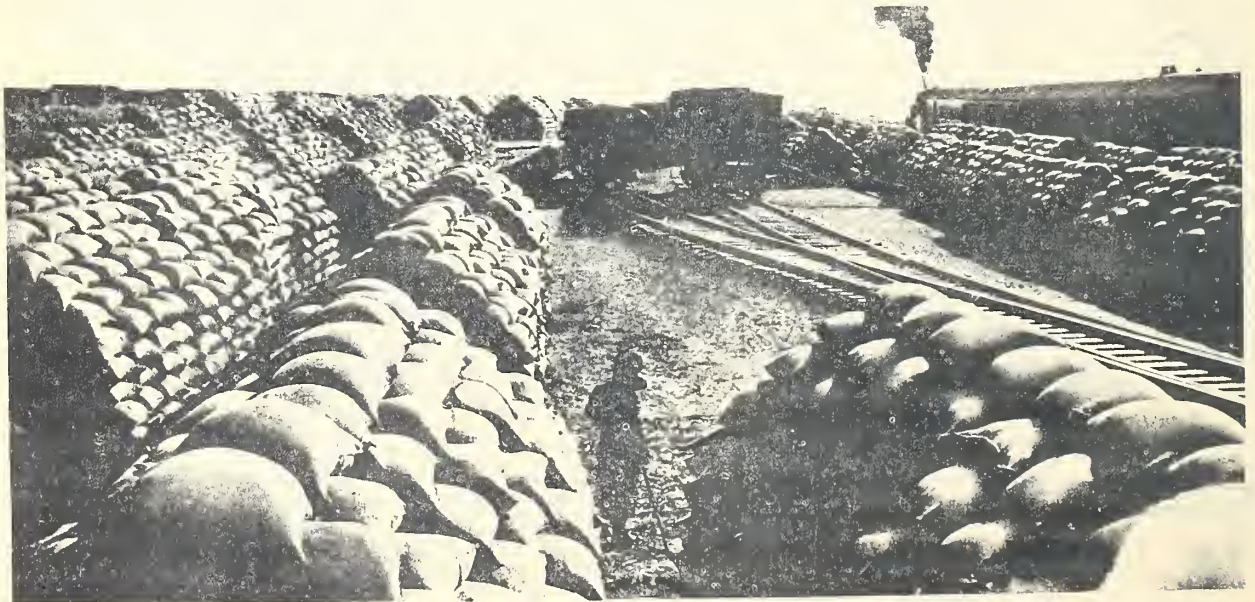


FIGURE 3.- SOYBEANS AWAITING SHIPMENT.

The Manchurian railways not only facilitated the colonization of the region, but actually shaped its economic structure. In this territory of self-sufficient peasant farming there was not only an absence of any economic contact with the outside world, but different districts were even isolated from each other. It remained for the railways to consolidate Manchuria into a single economic unit. Until the opening of the Chinese Eastern Railway and later the South Manchurian, commercial farming was practically non-existent inasmuch as the local markets provided an extremely limited demand for farm products. But when the railroads furnished an outlet in the Far East as well as in the world markets for the products of the newly-opened land, a basis for commercial farming was created. As new land was being put into cultivation, South Manchuria was increasing the demand for wheat flour, the Russian mills in North Manchuria and the bordering regions of Russia and Far East were demanding more grain, while Japan and Western Europe were in the market for soybeans and derivative products.

Characteristics of Manchurian Agriculture

Large proportion of tenant farms

The total number of farms in Manchuria is estimated at 4,800,000, with a rural population of about 24,000,000. The average size of a farm would be 7 acres if the total cultivated land were more or less evenly distributed. In reality, however, great numbers of Manchurian farmers own less than 7 acres, while a considerable group owns no land at all and is compelled to farm on rented land. On the other hand, in North Manchuria 15 percent of the farmers and large land owners (based on an estimate of 700,000 farms) possess 50 percent of all the cultivated land. The significance of this unequal land distribution is reflected in the widely-spread tenant farming which plays an important role in Manchuria's rural economy.

Data are not available concerning the acreage of the tenant farms, but it is estimated that in this relatively young pioneering agricultural country, 30 percent of the entire farm population are tenant-farmers, who have no land of their own. The manner in which the free land reserves were disposed of was responsible for this development. The "free land" of Manchuria was not free insofar as the immigrant was concerned. Vast tracts of land were turned over to a small group in full ownership at very low or unusual prices. "The result is", as one writer pointed out, "that of the thirty million Chinese who went to Manchuria, a very large proportion went under what amounts to a system of labor recruiting which settled them on these crown lands, nominally as tenant farmers, but actually as little more than agricultural laborers with scant hope of ever achieving land-ownership or economic independence." ^{1/} There are a great

^{1/} Alsberg, Carl L., "The Struggle for Food", in "Empire in the East", edited by Joseph Barnes. p. 224.

many tenant-farmers who are also small landholders. Inability to secure a livelihood from their small plots compels them to lease additional land. This group of tenant-farmers accounts for nearly 20 percent of the entire Manchurian farm population. It appears, therefore, "that approximately one-half of the Manchurian farmers must depend more or less for their livelihood upon the cultivation of leased land."^{2/}

The difficult economic status of the tenant-farmers is reflected in the conditions under which land is leased. The agreements between the landlords and the tenants are usually oral and seldom written. The contracts are arranged for a period of 1 to 5 years but, as an oral agreement is less binding than a written one, there is always the danger that the landlord will recover the leased land with little or no notice. This is one of the factors contributing to the "rackrent" situation in Manchuria.

Sharecropping is the prevalent system of land leasing. Land rents range from 40 to 60 percent of the crop, depending upon the price of the land and a variety of other terms under which the land is turned over to the tenant. In the newly cultivated districts of North Manchuria where the landlords provide the tenants with the land and all the required materials and implements "land rents are exorbitantly high, and the tenants are entitled to less than 30 percent of the proceeds from their farms." ^{2/} Hence, the conclusion that "nowadays land rents evidently are not land rents in the strict sense, they being figured out so as to devolve upon the tenants a considerable portion of the burdens that should be borne by the landlords." ^{2/} With the major part of the crop turned over to the owners of the land, the income of a large group of farmers is cut to a minimum; capital accumulation and improvements on the farms in one form or another are almost impossible. It is admitted in official circles that the tenancy system as it operates in Manchuria, "smacking strongly of feudalism, inevitably accelerates a retrogression of farming technique." ^{3/}

High percentage of small farms

Farming is carried on in units greatly varying in size. They range from very small holdings of an acre or so to holdings covering several hundred acres. The latter are the exception, however, for generally speaking, large-scale farming is not practiced. There are only a dozen estates of some 4,000 acres each, and very few farms between 250 and 500 acres in size. Figures dealing with 700,000 farms in North Manchuria, where land is more plentiful, show that 45 percent of the total are between 18 and 54 acres in size, while 36 percent of all the farms range from 2 to 18 acres each. In South Manchuria, where the density of farm population is greatest, the average size of a farm

^{2/} Japan-Manchoukuo Year Book, 1937, p. 840.

^{3/} Ibid, p. 844.

- - - - -

is considerably smaller than in the North. An investigation of 11,000 farms in a typical agricultural section of South Manchuria reveals that 62 percent have only 10 or less acres per farm. It may be concluded, therefore, that the rural economy of Manchuria is based upon small peasant agriculture.

Agriculture generally intensive

A characteristic feature of Manchurian agriculture is that the immigrants have brought with them most of the farming practices in which they were trained in China. Some of them are reflected in the extensive use of human labor, in the simplicity of farm tools and implements, and in the absence of fallow. In Manchuria, as well as in China, the farmers aim to receive a maximum return from a unit of land through the intensive application of human labor and a minimum expenditure of capital in the form of animal power and modern agricultural equipment; though compared with the agricultural practices in China Proper, agricultural practices in Manchuria are of a somewhat less intensive character.

The agricultural implements used give rise to this type of labor utilization. They are quite crude, made of wood and supported by small pieces of steel only in important places. Many of the implements are made by the farmers themselves and are designed to be used either with manual or animal power. Their efficiency is quite low, but the lack of capital on the part of great numbers of farmers prevents them from purchasing more modern agricultural equipment. The investment in implements is therefore small, amounting on the average to 4 percent of the total farm investment.

Cultivation methods crude

A peculiar but widespread practice in the sections where drainage is necessary is the ridge system of cultivation. By means of primitive ploughs the fields are covered with parallel rows of interchanging ridges and furrows. The seeds are planted in the ridges after which the ridges are rolled down. In periods of drought, the ridges attract moisture from the atmosphere during the night, while during period of excessive rains they allow the surplus water to be drained off by the furrows. The basic importance of this system of land cultivation is that it makes fallowing unnecessary, since the alternation of ridges and furrows provides a rest for part of the area under cultivation. The crop rotation system practiced is that of three, four, or five fields, depending upon the soil and climatic conditions, size of the farms, availability of seeds, and agricultural prices. The essential part of crop rotation is soybeans, for which climatic and soil conditions are most favorable, and which are important as an export product and an item of local diet. A common rotation is somewhat as follows: in North Manchuria, soybeans, wheat, kaoliang, and millet; in South Manchuria, wheat is generally omitted.

The manner in which the land in Manchuria is worked has led to what one writer termed, "the highway robbery" of the soil. The effects of this are particularly noticeable in certain sections of South Manchuria, where agriculture has been carried on for 400 years. Manchurian farmers generally do not fertilize the soil until its fertility begins to show definite signs of decline. For this reason fertilizers are most extensively used now in South Manchuria, while in North Manchuria the fresh and not yet exhausted lands are not fertilized. Manure is the common fertilizer, while chemical fertilizers are used hardly at all.

Principal Crops

The principal crops of Manchuria are soybeans, kaoliang, millet, corn, wheat, and rice among the grains, and perilla, cotton, hemp, and tobacco among the technical crops. The distribution of the crop area in Manchuria is shown in the following table:

Distribution of crop acreage in Manchuria, 1936

Crop	Area	Percentage of total
	1,000 acres	Percent
Soybeans.....	8,571	24.9
Other beans.....	934	2.7
Kaoliang.....	7,397	21.5
Millet.....	6,313	18.3
Corn.....	3,244	9.4
Wheat.....	2,704	7.8
Rice.....	433	1.3
Rice (upland).....	282	.8
Other grains.....	2,429	7.0
Hempseed.....	176	.5
Perilla.....	448	1.3
Other technical crops.....	1,542	4.5
Total.....	34,473	100.

Joint estimate compiled by South Manchuria Railway, State Railways, Department of Industry, and Department of Mongolia Administration.

In 1936, technical and vegetable crops were estimated at 2,166,000 acres, or 6 percent of the total crop area. Manchuria, therefore, in the present stage of agricultural development is essentially a producer of grains. A fourth of the entire cultivated acreage is devoted to soybeans; kaoliang with 22 percent, millet with 18, corn with 9, and wheat with 8 percent of the total acreage, make up the other four important crops.

Soybeans the major commercial crop

The soybean is Manchuria's premier crop. In recent years it has accounted for about 25 percent of the region's entire grain output, and it represents 30 to 35 percent of the world soybean production. So predominant is the position of the soybean, bean cake, and bean oil in the trade of Manchuria, that these commodities constitute 80 percent of the value of all agricultural exports and more than 53 percent of the total value of all Manchurian exports. This indicates quite clearly that the soybean is not just a major crop but the very foundation upon which the economic life of Manchuria rests.

The important position of this staple may be attributed to a number of factors. Among them are the soil and climatic conditions, which are very favorable for the cultivation of the crop; the almost complete immunity of the plant to all kinds of disease; the fact that the failure of a soybean crop seldom occurs; and the sharply fluctuating yields of wheat, the second important cash crop in Manchuria, which makes the latter a less reliable crop. The combination of these elements, together with the railway development and colonization of the country, made possible the expansion of soybean production in Manchuria. But it was the growing world demand for soybeans that brought about its spectacular rise as an international commodity. The ever-increasing demand for soybeans was but a reflection of numerous uses to which they are being put the world over. These uses fall mainly into four categories: human food, fodder, raw material for a great variety of industrial purposes, and a fertilizer in the form of bean cake.

Soybeans have been cultivated in Manchuria for centuries, but until about the middle of the 19th century the output was small and their utilization was limited chiefly to local consumption. With the improvement in the methods of oil extraction from soybeans and the general increase of their usefulness, soybean production greatly increased. Previous to 1908, Manchurian soybeans were shipped only to China and Japan. The first shipment of beans to England, which took place in 1908, amounted to less than 4,000 bushels but met with such instant success that it insured Manchuria an important place in international trade. With the extension and expansion of the market in Japan, China, and Europe, soybean production increased very rapidly and by 1929 Manchuria was exporting almost 100,000,000 bushels of soybeans, about 1,550,000 short tons of bean cake, and 242,000,000 pounds of bean oil.

Production of soybeans in Manchuria reached the peak in 1930 when it was estimated at 197,000,000 bushels. Since then production has declined by about 40,000,000 bushels. A decline in yield per acre is one of the reasons underlying this reduction. The average yield for the 5-year period 1932-1936 was 16.7 bushels per acre, against 20 bushels in

in 1924-1928. It should be pointed out, however, that notwithstanding lower yields in recent years they are still higher than the 5-year average of little more than 15 bushels per acre in the United States.

Acreage, production and yield of soybeans in Manchuria,
1924-1936

Year	Acreage	Production	Yield per acre
	<u>1,000 acres</u>	<u>1,000 bushels</u>	<u>Bushels</u>
1924.....	4,320	112,055	26.0
1925.....	6,619	126,092	19.0
1926.....	6,381	107,740	16.8
1927.....	8,752	163,319	18.7
1928.....	9,228	177,804	19.3
1929.....	9,493	178,389	18.8
1930.....	10,034	196,944	19.6
1931.....	10,380	192,057	18.5
1932.....	9,534	156,821	16.4
1933.....	9,886	169,056	17.1
1934.....	8,088	122,980	15.2
1935.....	8,334	141,793	17.0
1936.....	8,571	155,424	18.1

For 1924 to 1932 estimates of the South Manchurian Railway.
For 1933 to 1936 joint estimates compiled by South Manchurian
Railway, State Railways, and Department of Industry of Man-
choukuo Administration.

Aside from the lower yields, the downward trend of Manchurian bean production in the past few years was also due to a decline in acreage under this crop. During the years 1924-1931, the acreage under the crop almost doubled, but since the latter year it has declined about 20 percent. Political and economic factors were responsible for this development. On the one hand, the Manchurian "incident" of 1931 and the political disturbances in the countryside led to the curtailment of crop area in many districts; on the other hand, the sharp fall in soybean prices, with its adverse effect upon the generally meager farm income, caused many farmers to abandon the land for more remunerative occupations in the building trades and railway construction projects, where labor was in considerable demand.

Soybeans are produced both in South and in North Manchuria. The principal producing districts of South Manchuria are to be found along the Liao River; in North Manchuria, on the fertile plains along the Sungari

River, Until very recently soybean production was considerably larger in the South, but with the expansion of agriculture in the North, the relative importance of the two sections is being changed. Thus, in 1936, North Manchuria accounted for 47 percent of the total output. The main bean-producing center has shifted northward, and this trend may be expected to continue, since most of the uncultivated land is found in North Manchuria.

There are over 200 varieties of soybeans produced in Manchuria, but for commercial purposes they are divided into three groups according to their color: yellow, green, and black. The first two are used almost entirely for extracting oil, while the black soybeans are used more as feed for domestic animals and fertilizer and for human consumption. Most of the commercial beans are of the yellow varieties. Seed requirements average around 36,000,000 bushels a year. The domestic disappearance has represented from 20 to 25 percent of the average annual production during the past 5 years. The remainder is exported.

Prior to 1909, the average annual value of soybean exports was small, probably not exceeding \$1,000,000 in any one year. After 1909, when England and other European countries discovered the "magic bean", shipments abroad increased by leaps and bounds. The following table shows the volume of exports during the years 1927 to 1936.

Manchurian exports of soybeans and bean products, 1927-1936

Year	Soybeans <u>a/</u>	Bean cake	Bean oil
	Million bushels	1,000 short tons	Million pounds
1927.....	64,509	2,284	437,761
1928.....	80,813	1,764	294,067
1929.....	98,931	1,551	241,931
1930.....	82,132	1,670	322,229
1931.....	91,001	1,827	320,099
1932.....	94,475	1,721	330,205
1933.....	83,941	1,158	164,781
1934.....	88,830	1,250	192,742
1935.....	65,999	1,062	218,668
1936 <u>b/</u>	72,311	935	148,000

Fifth Report on Progress in Manchuria to 1936. a/ In bushels of 60 pounds.
b/ Monthly returns of Foreign Trade of Manchoukuo, December 1936.

Europe, Japan, and China are the chief consumers of Manchurian soybeans. During the last decade Europe took about 60 percent of the total exports, while the annual takings of Japan and China averaged 23 and 13

percent, respectively. Germany is the principal consumer of soybeans shipped to Europe, and Denmark, England, and Sweden follow in the order of importance. Soybeans shipped to Europe are used for oil extraction, and those exported to Japan are also used as food. Nearly 90 percent of the total Manchurian production of bean cake is exported, of which 80 percent is shipped to Japan. Europe and China are the principal consumers of Manchurian bean oil.

The great economic benefits derived from this cash crop are indicated by the fact that during the last decade the annual share of the soybean and its derivative products in the total export trade of Manchuria averaged 53 percent. But the reliance upon a single crop has a definite drawback, especially in times of economic depression, which usually weighs heavily upon agricultural raw materials. In comparison with 1931, the 1935 value of exports of soybeans and bean products declined 45 percent. This was due chiefly to the fall in prices rather than to the decreased volume of exports. The lowest level was reached in 1934, but because of improved economic conditions and a short crop, prices have risen so rapidly that in 1936 they were the highest on record in recent years. Thus the total value of the exports of soybeans and bean products amounted to 201,500,000 M. Yuan (\$58,294,000) in 1935 and to 291,000,000 M. Yuan (\$83,953,000) in 1936.

Average yearly price per pound for soybeans and soybean products at Dairen, 1930-31 to 1935-36, and average October-March, 1935-36 and 1936-37

Crop year October-September	Beans	Bean cake	Bean oil
	Cents per bushel	Cents per pound	Cents per pound
1930-31.....	66.0	0.77	3.05
1931-32.....	54.0	0.64	2.38
1932-33.....	51.0	0.59	2.43
1933-34.....	54.0	0.61	2.26
1934-35.....	69.6	0.79	3.40
1935-36.....	92.4	1.00	4.47
October-March 1935-36	75.2	0.81	3.85
1936-37	90.9	1.07	4.92

From the Report on Manchurian 1936-37 Soybean Situation, and Review 1935-36, prepared by Assistant Agricultural Commissioner J. Barnard Gibbs, at Shanghai.

The upward trend in the value of the Manchurian bean trade in 1936 was based upon the rise in prices rather than upon an increased volume of exports; the latter was still considerably below the level of the peak years. The 1936 exports of soybeans, soybean cake, and soybean oil were 27 percent,

- - - - -

49 percent, and 54 percent smaller than the respective volumes of similar products in 1931. In 1936 the volume of German imports of soybeans had declined to only 28 percent of that of 1931. It was expected that the German-Manchurian Trade Agreement of April 30, 1936, terminating April 30, 1937, would reverse this trend. German imports of soybeans from Manchuria during the first 8 months of the Agreement indicate, however, that they will not attain the volume of the pre-depression years.

Another serious blow to the Manchurian bean trade is the decline in exports to China. During the years 1931 to 1936 Manchurian exports of soybeans to China declined 56 percent, beancake 72 percent, and bean oil 84 percent. The severance of Manchuria from China, which led to the erection of a tariff wall where formerly goods passed freely, is the real cause of the decline. Should the present relationship continue, the Manchurian soybean trade in China is not likely to regain former levels.

While Japan's soybean imports from Manchuria during the past 6 years have remained practically stationary, Japan has reduced its takings of beancake, of which it is almost the sole importer, from 1,342,000 short tons in 1931 to 742,000 tons in 1936. The decline was due chiefly to the fact that beancake used as fertilizer has met increasing competition from commercial fertilizers produced in Japan. This may have a restricting effect upon the total soybean output and particularly upon Manchuria's leading industry, bean oil refining, since the latter is dependent upon the Japanese market for disposing of the by-product, bean cake. Finally, the possibility of expanding soybean exports from the United States and other countries into European markets, where Manchurian soybeans enjoy a virtual monopoly, is still only a potential threat, but it adds an element of uncertainty to the future of soybean production and trade.

The Manchurian authorities are seriously studying the future of the soybean situation, because the economic welfare of Manchuria is so dependent upon the world's demand for soybeans, and this demand has been declining during the past 4 years. The alternative crops which are being encouraged are wheat, cotton, tobacco, hemp, and sugar beets. The Manchurian farmer has found through years of experience, however, that the soybean plant is very well suited to the climate, and unless prices for beans become extremely low and prices for the other crops become high, he is not likely to change readily to crops of less certain yields.

Wheat acreage small but expansion planned

Wheat is the second most important commercial crop in Manchuria, but at present its area is relatively small, amounting in 1936 to 2,700,000 acres, or 8 percent of the total acreage under cultivation. The wheat grown is almost entirely soft spring wheat. While the cultivation of soybeans is extended throughout Manchuria, wheat growing is concentrated

in Northern Manchuria where it occupies about one-fifth of the crop area. North Manchuria accounts for 90 percent of the total wheat output.

The Manchurian wheat belt, situated roughly in the latitude of the Dakotas, may be divided into two regions. The first embraces an area lying between Harbin and Tsitsihar, reaching the foothills of the Little Khingan Mountains to the north. The second region comprises the area to the east of Harbin and Central Kirin. In general, it may be said that production of wheat has developed in districts close to the railways in North Manchuria, particularly the Chinese Eastern Railway, and in the lower basin of the Sungari River with its numerous tributaries.

Prior to the construction of the Chinese Eastern Railway, wheat production in Manchuria averaged around 6,000,000 bushels. With the opening of the railroad and the growth of the Russian population in Manchuria, wheat production was extended to meet the increased demand. The demand for wheat during and immediately following the World War stimulated the production still further.

Acreage, production, and yield per acre of Wheat in Manchuria,
1924-1936

Year	Acreage	Production	Yield per acre
	<u>1,000 acres</u>	<u>1,000 bushels</u>	<u>Bushels</u>
1924.....	1,843	29,542	16.0
1925.....	2,174	35,303	16.2
1926.....	2,212	35,551	16.1
1927.....	2,812	53,085	18.9
1928.....	3,254	53,986	16.6
1929.....	3,175	47,831	15.1
1930.....	3,392	50,857	15.0
1931.....	3,919	58,066	14.8
1932.....	3,094	41,634	13.5
1933.....	3,395	31,726	9.3
1934.....	2,042	23,463	11.5
1935.....	2,667	37,312	14.0
1936.....	2,704	32,693	12.1

From 1924 to 1932, estimates of the South Manchurian Railway. For 1933 to 1936, joint estimate compiled by South Manchurian Railway, State Railways, and Department of Industry of Manchoukuo Administration.

Reliable data on output and acreage prior to 1922 are not available, but considering the fairly large wheat exports abroad during 1919, 1920,

- - - - -

and 1921, the annual output for these years may be roughly estimated at 60,000,000 bushels. During the past 15 years, however, Manchurian wheat production not only failed to expand, but, on the contrary, has shown a downward trend. It reached its lowest level in 1923 when rust and unfavorable weather conditions reduced the crop to 18,000,000 bushels. During the next 3 years the wheat acreage and output remained small, since many farmers considered wheat an uncertain crop and preferred to devote more land to the cultivation of soybeans. Between 1927 and 1931 wheat acreage was on the increase, reaching a peak of nearly 4,000,000 acres, with an outturn of 58,000,000 bushels. But for the past 5 years climatic as well as unsettled political conditions have brought about a reduction in acreage and production. Wheat yields, which during the past 13 years have ranged from 10 to 16 bushels per acre, are smaller than those in China and Japan, where farming is much more intensive.

With the decline in output and an increase in population Manchuria lost its position as a surplus wheat producer and became a deficit region. Wheat and wheat flour exports from Manchuria reached their peak in 1920, when 20,000,000 bushels were shipped abroad. They have declined since that year. The low quality of Manchurian wheat and its comparatively high price, due to the relatively strong demand from the interior of the country, make this grain generally unsuitable for European markets. Prior to 1917, South Manchuria and the Russian Maritime Province were the principal markets for the North Manchurian wheat surplus, but during that year exports were made to Japan. The high prices of wheat resulting from the poor crops in the importing countries in the years immediately following the World War stimulated an expansion of the wheat acreage in Manchuria. These conditions brought about the export of Manchurian wheat to Europe.

In 1921 the world wheat situation changed completely. The harvests in the major wheat producing countries were good and prices on the world market declined sharply. At the same time the Manchurian wheat harvest was below average, while local prices were at high levels. These developments eliminated Manchurian wheat not only from the European markets, but, to a great extent, from the Far Eastern markets as well. This tendency was accentuated by the succeeding years of relatively short harvests of a poor quality.

During the last decade, Manchuria has been on a net import basis. In recent years, 1933-1935, Manchuria's annual import of wheat flour has been especially high, averaging 5,604,000 barrels. This may be explained on the ground of extremely low prices of the imported flour and increased demand from the urban centers in the face of a reduced domestic wheat crop. In 1936, with the sharp rise of flour prices, Manchurian flour imports were only 2,368,000 barrels, a decline of more than 52 percent in comparison with the average of the preceding 3-year period.

Plans are now on foot to expand wheat production in Manchuria not only with a view to making Manchuria self-sufficient in this grain but to provide a source of supply for Japan as well. The 10-year program for economic reconstruction of Manchuria calls for a wheat area of 5,600,000 acres, producing 100,000,000 bushels of wheat. The program stresses better cultivation methods and provides for the encouragement and subsidizing of wheat growing. The railroad authorities also are fostering wheat growing in undeveloped regions of North Manchuria as part of their program for the economic development and settlement of the areas along the new railway lines. They also display an interest in mechanization of agriculture in these regions. In this connection, it is reported that tracts of land were selected in North Manchuria, with a view to establishing a number of large scale mechanized farms.

Despite the Government measures, very formidable obstacles confront the realization of the wheat plan. Climatic conditions are not entirely favorable for wheat, a basic factor which limits the wheat acreage and output. Insufficient precipitation in the winter and spring months often hinders wheat growing to such an extent that large areas planted to wheat have to be resown, or other crops substituted. Furthermore, excessive rainfall in July and August make harvesting of the wheat crop very difficult. But in addition to these adverse factors, wheat growing in Manchuria also suffers from rust. There is hardly a season when the wheat crop does not suffer from rust to a greater or lesser extent, sometimes being reduced by 50 percent or more. Aside from climatic conditions, the price of wheat, particularly in relation to that of soybeans, plays an important part in determining the wheat acreage. In view of the uncertainty of the wheat crop, this price relationship would have to be particularly favorable to wheat in order to induce farmers to increase the acreage under this crop - a situation which has seldom existed in the past.

Some difficulties experienced by the Manchurian wheat growers can be overcome through improved methods of cultivation and the introduction of wheat varieties better able to withstand the rigors of the Manchurian climate and the ill effects of the rust disease. To a very large extent successful realization of the Manchurian 10-year plan for the expansion of wheat production will depend upon the timely application of such measures. Meanwhile, it is well to keep in mind that weather and soil conditions in Manchuria are much more favorable to soybeans than to wheat, and as long as soybeans can find a better market, the farmers will be very reluctant to substitute an unreliable crop for one enjoying more stable yields.

Kaoliang an important food and fuel

Kaoliang, a grain sorghum, is one of the most important food staples of the Manchurian population. For this reason, it is, along with soybeans, a most vital agricultural product. In addition to its

utilization for human food, it is used as feed for domestic animals, for the distilling of native liquor, and to a small extent in the starch manufacturing industry. The usefulness of kaoliang does not end with the grain: its stalks are indispensable as fuel, as building material, and for the making of coarse matting, and its leaves for animal forage.

With the ascendance of soybeans to the position of Manchuria's premier crop, and the increase in the production of other food staples, such as millet and corn, kaoliang is losing some of its former importance. During the years 1925 to 1930 the kaoliang area showed a slight upward tendency, reaching in the latter year 7,550,000 acres. By 1934 it had declined to 6,688,000 acres. Among the factors contributing to this reduction were a shift of many farmers into industry and an order of the military authorities prohibiting the cultivation of kaoliang within a specified distance from the railroads to safeguard the latter from attacks. In 1935 and 1936, however, the area under kaoliang increased again to 7,397,000 acres. The principal producing centers are in South Manchuria. Of the total output, which in 1936 amounted to 180,000,000 bushels, South Manchuria produced 75 percent. A very small part of the crop is exported to China and Japan.

Millet another staple food crop

Millet is equal in importance to kaoliang as a staple food. The stalks are utilized as fodder, and like kaoliang, millet is an important raw material for the production of a native yellow liquor. The area under this grain, which has been slowly increasing in recent years, amounts to over 6,000,000 acres, and constitutes 18 percent of the total cultivated area of Manchuria. The output, however, has not shown a similar trend due to somewhat lower yields in recent years. Millet is well adapted to the climatic and soil conditions of Manchuria, and the acreage is about equally divided between North and South Manchuria. More than 90 percent of the output is consumed domestically, the surplus being exported largely to Chosen.

Corn, of lesser importance

Of lesser importance as a food crop is corn. It ranks fourth as far as acreage is concerned, and in 1936 the area under this crop, amounting to over 3,000,000 acres, represented 9 percent of the cultivated land of Manchuria. The main corn producing districts are in the southern sections of South Manchuria. The corn is practically all of the flint type. About 5 percent of the output is exported to Japan and China.

Cotton - expansion efforts meet serious obstacles

Among the industrial crops cotton deserves special consideration, not so much because of the quantity actually produced - which is small - but chiefly because of the efforts that have been made in recent years to

expand cotton production in Manchuria. In 1933 the Manchurian cotton output from an area of 135,000 acres was 60,000 bales of 500 pounds. The annual cotton requirements for consumption in Manchuria amount to about 4 pounds of raw cotton per capita, compared with 25 pounds in the United States, or a total of 270,000 bales of 500 pounds. Taking into consideration the present rate of population growth, it is estimated that by 1950 the cotton requirements of the country will rise to about 350,000 bales. A slight increase in per-capita consumption would raise the requirements to 400,000 bales. At present the native output of cotton constitutes only 25 percent of the requirements. Of the remainder, half is imported in the form of cotton piece goods and the other half in the form of raw cotton.

In 1933 the Manchurian authorities, in conjunction with Japanese interests, launched upon a policy of increasing the cultivation of native cotton varieties, as well as of the early-maturing American types, and of improving the quality of native cotton for spinning of medium-count yarn. More concretely, the program called for annual expansion of the cotton area until it reached 740,000 acres by 1950, a very marked expansion over the 135,000 acres under cotton in 1933. The program anticipated that such an area would produce a crop of around 400,000 bales, of which 50 percent or more was to consist of upland varieties from original American seed.

Such was the main scope of the program despite the recognition in industrial and certain other circles of Manchuria that any large-scale increase in cotton acreage faced serious obstacles. Among the more important are climatic and soil conditions, which restrict cotton growing to a limited area in South Manchuria, where cotton has been grown for centuries. It was nevertheless felt that more cotton could be produced in South Manchuria if farmers were to substitute cotton for other crops. This seemed plausible in the years 1933 and 1934, when the low prices of soybeans were partly responsible for the decrease in acreage under this most important cash crop in South Manchuria. But even if farmers are willing to shift to cotton when prices of soybeans are low, the production of a type of cotton comparable with American would be extremely difficult because of the comparatively short growing season.

Two organizations have been set up to stimulate cotton production in Manchuria. The first, organized in 1933, is the Manchurian Cotton Association, controlled by the Manchurian Government and the South Manchurian Railway, the latter being controlled by the Japanese Government. The business of the Association was to organize branches in leading cotton-growing districts and to station experts there for the purpose of teaching and encouraging the best methods of cotton cultivation; to operate seed farms and experiment stations; to render assistance in the cooperative marketing of cotton and to give financial assistance to the growers.

The second organization was the Manchurian Cotton Company, organized in 1934, with a capital of 2,000,000 Yen (\$594,000), and controlled by the Manchurian Ministry of Industry. The main functions of the company were to guarantee minimum prices for all cotton delivered to it and to provide seed to the farmers who wished to grow cotton. The company was also authorized to pay higher prices for cotton grown in certain sections in order to stimulate production there. One-half of the company's capital was subscribed by the Government and the other half by Japanese interests. In order to assist the company in the early stages of its existence, the Government decided to turn back any dividends accruing to the account of its shares until such time as it was able to declare a 6-percent dividend.

Judging by the results achieved to date, it is highly problematical whether Manchuria will be able to expand cotton production along the lines indicated in the program. It is true that the Manchurian farmers increased their cotton area from 135,000 acres in 1933 to 227,000 in 1934. The yield per acre in 1934, however, was 25 percent below that of the preceding year, with the result that the outturn increased only by 16,000 bales. Despite efforts of the authorities to induce the farmers to maintain or even extend the acreage, the cotton area was reduced to 140,000 acres in 1935 and the output to 63,000 bales. The reduction in acreage was due to the poor yields obtained the preceding year and to the fact that with the rise in agricultural prices, farmers were attracted to the cultivation of other crops.

The experience gained in cotton growing since the inauguration of the program revealed the tremendous difficulties inherent in any attempt to make Manchuria self-sufficient in cotton. The Manchurian authorities still profess an interest in increasing cotton production, but it is officially reported that "the 20-year plan which was drawn up in 1933 was temporarily discontinued in 1936 and a 3-year investigation of fundamental conditions was instituted." 4/

Tobacco - flue-cured production increasing

Tobacco is one of the most important technical crops in Manchuria. The annual output consists of about 50,000,000 pounds of low-grade native tobacco and approximately 5,000,000 pounds of flue-cured. The native leaf, a dark sun-cured type, is used for pipe smoking, while flue-cured is utilized chiefly in the manufacture of cigarettes. The former has been grown in Manchuria for several centuries. Small quantities of native types are being produced in gardens for home consumption in all sections of the country south of 44 degrees latitude, but the only important commercial producing region is to be found in the southern and

4/ Fifth Report on Progress In Manchuria to 1936. Issued by the South Manchurian Railway, Dairen, July, 1936. p. 85.

eastern sections of Kirin province. In general, the production of native leaf is believed to be decreasing on account of the increased consumption of cigarettes in which only a small volume of native tobacco is used.

The growing of American types of flue-cured tobacco, which is of comparatively recent origin, is concentrated along the South Manchurian Railway south of Mukden. The most important producing district is near Fenghwangcheng, 30 miles from Antung on the Chosen border, where production was begun by the Japanese in 1918. The quality of the crop, however, is inferior to that grown in China or in the United States. In view of the excessive rainfall and the limited area available, it is not expected that the 2,500 acres currently planted to the crop in this section can be materially increased. Flue-cured tobacco also is grown at Anshan, 80 miles south of Mukden, where it was introduced by the Japanese less than a decade ago. The most modern methods of cultivation and curing are practiced there and an increase in acreage is likely in the near future. In the third flue-cured producing area, southwest of Mukden, along the Peiping Mukden Railway, tobacco growing is still in the experimental stage. The district, however, is looked upon as especially favorable for the production of flue-cured tobacco and considerable effort is being devoted to the development of the industry there.

Manchuria's annual requirement of flue-cured tobacco is estimated at 35,000,000 pounds, and the deficit of more than 30,000,000 pounds is covered by imports largely from China and the United States. In recent years imports of American tobacco used in the manufacture of cigarettes have declined. Thus, while annual imports from the United States during the period 1931-32 to 1934-35 averaged 13,000,000 pounds, in 1935-36 they declined to 4,000,000 pounds. At the present time, Manchuria's flue-cured tobacco requirements are supplied chiefly by China.

With the growing consumption of flue-cured leaf, the Manchurian Government launched a 20-year plan for tobacco production in order to make the country practically self-sufficient in cigarette tobacco. As a part of the program there was established a Government tobacco monopoly with authority to promote the cultivation of flue-cured tobacco in Manchuria. A long-time program of education of the growers and assistance with governmental loans for seed, etc., has been adopted. The Monopoly also has complete charge of the marketing of all flue-cured tobacco, the farmers being compelled to deliver their product to the Monopoly, which in turn acts as a sales agent on a commission basis. As to the prospect of the program and its effect upon imports, it is held that even if it should be successful in expanding the production of flue-cured leaf to replace a considerable volume of imports, small quantities of American flue-cured tobacco will be needed for blending in the manufacture of the better quality of cigarettes.

Livestock Generally Poor In Quality

A review of Manchurian agricultural economy, however brief, would be incomplete without touching upon the country's livestock industry. Throughout the greater part of Manchuria, crop production is the chief source of income, and the domestic animals are merely utilized in farm work and as a means of transportation. In Jehol and in the western and northern districts of Manchuria, livestock is the dominant industry.

Accurate data on livestock are not available, but it was estimated that in 1935 Manchuria possessed a total of 1,277,000 cattle, 1,809,000 horses, 1,189,000 mules and donkeys, 2,058,000 sheep, and over 6,000,000 hogs. A characteristic feature of the livestock is its poor quality. The animals, even in the predominantly stock-breeding regions, are mostly those that have survived the process of natural selection, almost without benefit of improved breeds of superior strains. The fact that animal diseases are widespread in Manchuria is also a serious handicap.

Since 1933, Manchurian authorities have promulgated a number of measures with a view to improving the country's livestock. Some improvements are being effected in stock-farming by a careful distribution of superior imported breeds of various animals, by establishing livestock breeding farms and other facilities, and by more effective control of diseases. Of special significance, however, is the effort exerted toward the improvement of the existing stock of sheep and the increase of wool production.

Until very recently sheep raising in Manchuria was carried on for the sake of mutton and hides, wool being regarded merely as a by-product. The quality of the wool was very poor, much inferior to Australian, South African, or South American, and was utilized principally as carpet wool. The yield per head was stated to be about 2.5 pounds, giving a total annual wool production in Manchuria of slightly over 5,000,000 pounds. A 35-year program, which aims to increase the number of sheep to 15,000,000 and the annual wool output to 100,000,000 pounds has been inaugurated. Japanese interests are taking an active part in the promotion of the program in the hope that its realization will make Japan less dependent upon imports of Australian wool.

The first step in raising the sheep industry from its low level was the establishment of a number of sheep breeding farms, and in the summer of 1935 the Manchurian Government imported 775 Merino sheep from the United States for this purpose. The authorities intend to give every encouragement to sheep raisers through technical advice and the granting of subsidies and loans. For the purpose of fostering wool production there was organized in 1934 a Japan-Manchurian Sheep Association with a capital of 2,000,000 Yen (\$594,000) subscribed as follows: Japanese Government, 1,000,000 Yen; Wool Industry Association, 700,000 Yen; and South Manchurian Railway, 300,000 Yen.

It is reported that the agricultural stations of the South Manchurian Railway are improving the native sheep strain, but developments are still in an experimental stage. The Manchurian authorities and Japanese wool interests realize that it will be a long time before sheep breeding in Manchuria can be carried out along the scientific lines of the countries where wool of the best grade is produced. Hence the extension of the program over a long period of years. Whether Manchuria will produce 100,000,000 pounds of wool by the end of the 35-year plan cannot be predicted, but it is very likely that the application of the proposed measures combined with the large area of grazing land available will bring about an increased output of wool. It is extremely doubtful, however, whether the quality of the product can be raised to anything like that of Australia or other countries producing improved types of wool.

Conclusions

This discussion of Manchurian agricultural economy permits some general conclusions as to its present condition and future development. Acreage and output increased very rapidly, particularly during the third decade of the present century, reaching a peak in 1931. Since then agriculture in Manchuria has experienced a setback. The total agricultural production in 1936 showed a considerable recovery, but was still 11 percent below that of 1931. Moreover, the recovery was much slower in the case of Manchuria's two main cash crops: In 1936, the soybean output was 20 percent and wheat production 44 percent smaller than in 1931.

Some of the causes underlying the decline may be attributed to domestic conditions such as unfavorable weather, shortage of farm labor, heavy taxation, and political disturbances following in the wake of the Manchurian "incident" of September 1931. But no less important in bringing to a halt agricultural expansion in Manchuria were external factors - the world-wide economic depression, the consequent drop in agricultural prices, and the sharp curtailment in the exports of soybeans and derivative products. The latter is particularly significant since the volume and value of the soybean export trade are the best guides to Manchuria's economic welfare. Unless, therefore, the Manchurian soybean industry achieves a greater measure of recovery, the country's entire economy will continue to be seriously handicapped.

In April 1936, Manchurian authorities embarked upon a task of strengthening the country's agricultural economy. The central feature of the new program is the emphasis on greater diversification, with a view to lessening the dependence on soybeans. The program, therefore, provides that "growing of soybeans shall be properly controlled according to their actual demand both at home and abroad. For the time being, efforts should be directed toward the improvement of the methods of soybean

cultivation and quality of the crop." 5/ The policy with respect to all other products, such as wheat, cotton, tobacco, sugar beets, wool, and various oil seeds, is that of increasing output and improving quality as rapidly as possible.

The program also aims to improve farm methods in general through education, by increasing the number of model farms and agricultural experiment and meteorological stations. Another objective is to improve marketing and credit facilities. Public warehouses are to be established not only to store farm products but also to extend credit to farmers. The Manchurian Agricultural Products Institute, a semi-official institution, was set up in 1935 in order to study foreign markets and competitive products as well as to encourage wider utilization of domestic products. An indication of Japanese interest in the agricultural development of Manchuria is the Central Institute of Manchurian Agricultural Associations. It was organized in October 1935 "through the initiative of the Manchurian Government, the South Manchurian Railway Company, the General Directorate of Manchurian State Railways, and the Kwantung Bureau for the purpose of correlating Japanese agricultural associations in Manchuria and to foster a healthy development of agricultural economy in Manchuria. It hopes to embrace Manchurian agricultural associations in the future and to make the whole of Manchuria its stage of activities." 6/

To a very considerable extent, expansion of agriculture in Manchuria is predicated upon railway construction in the undeveloped regions. From this point of view, the prospects are quite favorable. During the last few years the Manchurian railway network has been extended to the remote and thinly-populated western, northern, and eastern sections of the country. Many of these railways were built chiefly for strategic purposes, but aside from this, they also are economically valuable, since by opening new land they encourage further agricultural colonization.

It remains to be seen whether the program announced in April 1936 will solve the farm difficulties of recent years and generally raise Manchurian agriculture from its present relatively primitive stage. Meanwhile, it is to be noted that the "fundamental policy for the exploitation of the country's inexhaustible agricultural resources" 7/ makes no attempt to remedy such a basic problem as that of tenancy. The fact that 30 percent of the farmers do not possess any land at all and 20 percent of the farm population have so little of it that they, too, are compelled to rent land on most onerous terms, does not augur well for an efficient and progressive agriculture. The neglect of the problem is the more significant in view of the fact that Manchuria still has large undeveloped

5/ Japan-Manchoukuo Year Book, 1937. p. 855.

6/ Fifth Report on Progress in Manchuria to 1936. Issued by the South Manchurian Railway Co., Dairen, July 1936. p. 83.

7/ Japan-Manchoukuo Year Book, 1937. p. 854.

land resources suitable for cultivation. But quite apart from the tenancy problem, it is still questionable whether climatic and soil conditions will permit a diversified farming throughout Manchuria. The failure to increase cotton acreage illustrates the basic limitations.

Manchuria's ability to create a balanced system of farming and to secure markets for the exportable surplus may be questioned, but it is undeniable that Manchuria still possesses an area exceeding the present cultivated acreage, which could be devoted to agricultural expansion. Yet here, too, serious limitations are met. Most of this land is located in the north and does not represent the country's most fertile soil; nor are the climatic conditions in certain sections of this territory altogether suitable for farming, especially diversified farming. It is not at all certain, therefore, that even the full utilization of the area roughly estimated at 42,000,000 acres in addition to the 34,000,000 acres already cultivated, would transform Manchuria into the "granary of Asia." It is likely, however, that Manchuria will not only continue as one of the outstanding agricultural producing and exporting areas of the Far East, but that in years to come its importance in these respects will be increased.

Principal References

- Japan-Manchoukuo Yearbook, 1937.
 The Manchoukuo Yearbook, 1934.
 Fourth and Fifth Reports on Progress in Manchuria of the South Manchuria Railway Company.
 Reports from the Shanghai office of the Bureau of Agricultural Economics.
 "North Manchuria and the Chinese Eastern Railway" published by the Chinese Eastern Railway.
 E. E. Iashnov, "Peanut Economy in North Manchuria."
 Robert Burnett Hall, "The Geography of Manchuria."
 C. Walter Young, "Chinese Colonization and the Development of Manchuria" in the Problems of the Pacific, 1929.
 G. B. Cressey, "China's Geographic Foundations."
 Annual Returns of the Foreign Trade of Manchoukuo.
 Far Eastern Survey.
 Manchurian Monitor.

.

 .

NEW ZEALAND AGRICULTURAL POLICY

. . . . By A. T. Murray*

The economy of New Zealand has been predicated largely upon an expanding export outlet for a narrow range of farm products. The aftermath of the World War and, later, events incidental to the recent depression have interrupted this course and have been followed in each period by renewed and increased governmental assistance in the marketing of farm products. This tendency and measures taken earlier, notably those relating to land utilization, have evolved and found expression in the new policy of guaranteed prices to producers and Government marketing of farm products. The important dairy industry is now operating under the guaranteed price regime, and the extension of the policy to other farm products is contemplated. It is apparent, however, that the policy is beset with intrinsically difficult problems from the standpoint of practical operation.

New Zealand is exceptionally favored with natural conditions conducive to the development of the dairy and livestock industries. The mild climate and adequate rainfall enable livestock to be pastured throughout the whole year with a consequent saving in labor and feed costs and expenditure for barns and other buildings. The technical improvements in refrigeration and in dairy-products manufacturing in the eighties and nineties of the last century made possible the fuller utilization of New Zealand's agricultural resources. Prior to this development, while sheep raising was early established as a main industry and dairying carried on to some degree, the export trade was confined largely to wool, hides, and tallow. Meat was, therefore, an almost worthless by-product and markets for dairy products were limited to the small domestic demand.

While conditions in New Zealand are particularly well adapted to pastoral production, its expansion was dependent largely upon the development of export markets to absorb the increased production. This development was aided by the inflow of capital from the United Kingdom and by other commercial and political ties with that country. Consequently,

*Junior Agricultural Economist, Bureau of Agricultural Economics.

the British market came to be regarded as an almost limitless outlet for New Zealand's farm products. Improvements in transportation and handling methods removed the handicap of the Dominion's remote position from world centers of consumption. From 1900 onward a great expansion in the volume of exports of dairy products, mutton, and lamb took place. Exports of wool also continued to increase, but their relative share in New Zealand's export trade declined.

Prior to the World War, the Dominion Government's agricultural policy was concerned chiefly with problems of land settlement and tenure. One of the prime tenets of the policy was the promotion of denser settlement of the country and farmer ownership of small holdings. For this reason, the Dominion has been actively engaged for many years in disposing of repurchased land and public domain on generous terms and under conditions of tenure calculated to obtain the foregoing objective. Paralleling this development, New Zealand has maintained the practice of leasing public land on long-term contracts. Consequently, in spite of efforts to encourage farm ownership, about half of the occupied land is operated under government lease. The Government is not only a landowner but also a heavy mortgage holder with respect to such land as it does not own. As a matter of fact, the liberal land credit policy of the Government contributed to the acute farm debt problem during the recent depression period.

The World War and its repercussions embarked the Dominion Government on an active participation in the marketing of farm products. During the War the marketing of farm products was brought under rigid control for military reasons. When the wartime controls were relaxed within a few years after the close of hostilities; New Zealand farmers found themselves in the post-war slump. In response to the farmer's pleas for relief from the prevailing low farm prices, marketing acts were passed by Parliament establishing commodity control boards. In general, these control boards were organized to promote "orderly marketing" in order that the farmer might receive a fairshare of the price for which the product sold. While many of the control boards are still in operation, the more direct intervention of the government in marketing in the recent depression period reduced the relative importance of their activities.

The trend of agricultural development prior to the depression had shaped the economy of the Dominion to a large degree of specialization in a limited number of farm products. Moreover, a large share of the production is exported. The national income, therefore, is dependent heavily upon an export trade which consists mainly of an exchange of dairy products, mutton, lamb, wool, and fruit for a wide variety of British manufactures. In 1928, for example, agricultural exports comprised 96 percent of the value of all exports, about 65 percent of the value of all farm production, and 36 percent of the national income. Correspondingly, industrial development in New Zealand has been small and the number of people directly dependent upon agriculture is very large.

- - - - -

The New Zealand economy is peculiarly sensitive to changes in export prices, largely because of this dependence upon the export trade and the lack of diversification of production. The rapid and severe price decline following 1929 produced a disastrous reduction of national income. The crux of the situation was the disparity between export prices for farm commodities and the comparatively stable farm costs of production. Thus, while the index of farm prices declined 43 percent between 1929 and 1931, farm costs declined less than 10 percent. Since a large proportion of the farmers were forced to operate at a loss, a severe economic depression spread throughout the Dominion.

The severity of the depression was greatly magnified by the difficulties created by the debt structure in the country. Both public and private borrowing had been very heavy prior to the depression. A large part of the borrowings had gone into development purposes and land investments for which the interest and amortization represented a fixed charge on the national income. In 1929, private mortgage indebtedness amounted to some £225,000,000 (\$1,087,000,000) of which about £125,000,000 (\$604,000,000) represented farm mortgages. The total public indebtedness for both Dominion and local governments was about £326,000,000 (\$1,575,000,000) in the same year. Probably something like 20 percent of the national income was required to pay interest and amortization charges.

A large part of the Government loans was owed abroad, particularly to the United Kingdom. With the drastic decline in export prices for farm commodities the service of these debts became a serious problem. Thus, with the decline in prices, a larger share of the exchange on London had to be utilized to meet debt service charges. For example, in terms of wool, over three times as much had to be exported from New Zealand during the fiscal year ended with March 1933 as was exported in 1929 in order to pay the interest owed abroad on the public debt.

Partly as an effort to ease the strain created by the adverse international balance of payments, but more particularly to increase export returns to producers, the foreign exchange rate was lowered early in the depression. From the early part of 1930 the exchange rate was gradually lowered until in January 1931 it had reached 10 percent below par. It was pegged at this point by the New Zealand banks until January 1933, when the rate was lowered further to 25 percent below par. It has remained at about that point since then.

Government agricultural relief measures during the depression may be generally summed up as an effort to reduce the disparity between export prices and the cost of production. The problem was, therefore, attacked at both ends, efforts being made to reduce the costs of production and increase export prices. With respect to the former, while some attempt was made to reduce farmers' costs in several other ways, the main effort centered around alleviating the farm debt situation. Thus, personal adjustments of the debt burden of farmers were resorted to as an important method of

narrowing the gap between farm income and expenditures. With respect to export prices, it should be noted that efforts have been confined largely to exchange depreciation. Possibly the marketing arrangements of the Ottawa agreements also should be placed in this category. It likewise should be noted, however, that very little attempt has been made to influence prices by such methods as production control or export bounties. From the outset, of course, the efficacy of such measures was very doubtful in view of the preponderant export position of the leading agricultural products. A policy of paying export bounties in order to appreciably increase returns to farmers would have placed a tremendous burden on the Treasury at a time when revenue was falling off.

An entirely new approach to Government assistance in agricultural marketing is embodied in the Primary Products Marketing Act, 1936, which was placed on the statute books by the present Labor Government. Under the terms of this measure the Government undertakes to guarantee prices to New Zealand producers. Although the Act specifically refers to the establishment of a scheme which guarantees prices to dairy producers and government marketing of dairy products, other commodities may subsequently be brought under the terms of the law. While the scheme has not been in operation long enough to test its effectiveness, it is apparent that the administration of the guaranteed price plan is confronted with many difficulties.

The Act is also definitely tied up with the departure in New Zealand's foreign trade policy since it establishes bilateral exchange arrangements as a basis for negotiating trade agreements with Empire or foreign countries. Apparently, the Labor Government hopes to maintain or expand foreign markets for agricultural products with bilateral exchange arrangements as a leverage.

The following brief summary traces the development of New Zealand agricultural policy along three main lines: (1) land tenure, (2) assistance to marketing, and (3) guaranteed prices. In each of these fields, there have been developments of more than ordinary interest.

Government Policy in Relation to Land Tenure

Government measures relating to land are a particularly complicated and controversial subject, and no attempt has been made here to treat the matter exhaustively. In order to relate the land policy to other phases of the New Zealand Government's agricultural policy, however, a short discussion of the subject is presented below.

Pre-war period

In the early 1850's the Colonial Government of New Zealand introduced the practice of disposing of the public land very cheaply. The

discovery of gold and the demand for land in a time of rising world commodity prices caused the sixties and seventies to be periods of rapid land settlement. While the disposal of the public land at nominal prices resulted in increased land settlement, large areas of the most desirable land gravitated into large holdings. This tendency was accelerated as the general suitability of the country for commercial pastoral farming became more clearly demonstrated.

Public sentiment against this concentration of land ownership crystallized in the nineties. Graduated land taxes were imposed for the purpose of breaking up the large land holdings. More positive action was taken, however, with the passage of the first of the Land for Settlement Acts in 1892. These measures authorized the Government to repurchase private land for subdivision and sale to settlers. The Land for Settlement Acts inaugurated a new era of governmental activity in land utilization. The influence of governmental policy in this field has become more complicated with the passage of time. In general terms, however, the measures undertaken center around the effort to bring about the denser settlement of the country with small, independently-operated farms.

Under the settlement program, a farm could be acquired for cash, by deferred payment, or by a long-term lease. In order to carry out the land policy effectively, with very few exceptions the use of government land has been contingent upon certain conditions of improvement and residence. Even in the case of land acquired for cash, title passed only at the end of 10 years, subject to the purchaser making certain improvements within that period.

The repurchase and sub-division of land has been, in practice, of relatively small significance in reducing the size of land holdings, since by 1935 only 2,100,000 acres had been acquired as compared with some 43,000,000 acres of occupied land. The Dominion has disposed of a huge amount of public land, however, through long-term leases.

One of the outstanding results of New Zealand's land policy is the extent to which government leases have increased tenancy. At present the Dominion Government is the landlord for an area equal to about half of the total occupied land. Thus, in spite of active government encouragement of farm ownership, the trend has been very definitely toward an increased amount of farming under government leases. This tendency, however, will be curtailed in the future because of the limited amount of desirable land still available for this purpose. While conceivably the Government might repurchase more land, or poorer land be utilized for extending leaseholds, this development seems improbable in the immediate future.

The reason for the growth of farm tenancy under Government lease must be attributed very largely to the comparative advantages of renting as against owning land under New Zealand conditions. Leaseholds on government lands have been attractive because they have many of the advantages

of land ownership with few of its disadvantages. Most of them run for comparatively long terms, with right of renewal, and, in some cases, perpetual right of renewal. The land may be purchased at the option of the tenant, and outgoing tenants are protected in the improvements made during occupancy. The farmer's capital has been free, therefore, either for improvements or other purposes. Furthermore, he very largely avoids the hazards of investment in land during periods of low prices for farm products.

Post-war period

A survey of government land policy indicates that the general tendency has been to liberalize and reduce rents, initial payments, and terms of all government land contracts. The case of land purchased on deferred payments well illustrates this tendency. The system of deferred payments as established by the Dominion early in its history spread land payments over 5 and 6 years. Since then, there has been a steady increase in the number of years over which payments are extended. By 1920, a 5-percent deposit with the balance over 19 years had become typical. The 1921-22 legislation provided for 5 years' grace when "owing to a decrease in the price of stock (livestock) or produce or to a general financial stringency, payments of unpaid installments would cause undue hardship." The 1924 Act increased the leniency of the hardship clause still further. Terms of purchase were revised in 1926, so that at present land may be purchased with a 3-percent deposit, with principal and interest payments spread over 34 1/2 years.

Another factor which operated in the same direction has been the supply of government credit available and the methods of land finance used. While the bulk of long-term credit is supplied mainly from private sources, the State Advances Office, established in 1894, has been an important competitive factor operating to cheapen credit. Loans and credit terms on the purchase of private lands have had an influence similar to the effect of deferred payments made upon government land. By 1930, loans were advanced up to 36 1/2 years and amortized by semi-annual payments.

On the eve of the recent depression, New Zealand farm lands were very heavily mortgaged. In 1929-30 it was estimated that farm lands on which the unimproved value was £166,900,000 were covered with mortgages amounting to £116,800,000, or 70 percent of the unimproved value. Probably 30 percent of the cash outlay of farmers represented interest payments. Moreover, the country had passed through several periods of rising land values which had brought the price of land, particularly of the better land, to comparatively high levels.

With the lower price level, inflation of land values and excessive farm mortgage indebtedness have been major national problems in New Zealand. While the inflation of farm land values was largely a result of rising commodity prices and of speculation, nevertheless, it seems reasonable to

suppose that the very easy credit terms upon which land could be purchased with the assistance of the government contributed to this situation. In any event, the fact that during periods of falling land values a large amount of land was held on extremely small equities accentuated the hardships of deflation. Moreover, the established precedent of downward revisions and postponement of rent and payments to some extent reduced prudence in contracting land obligations.

Depression period

The Mortgagors and Tenants Relief Act was passed early in 1931 and has been amended and extended several times since then. The purpose of the Act is to stay foreclosure proceedings on rural and urban property. Under its terms a mortgagor may apply to a local Adjustment Commission, set up by the Act, for relief against foreclosure.

The Mortgagors and Tenants Relief Act was regarded, for a time at least, as essentially a temporary measure. It was passed with the idea in mind that if mortgage foreclosures were held up for a few years, there would be sufficient economic recovery within that time to permit debtors to resume their obligations.

The purpose of the Rural Mortgagors Final Adjustment Act, passed in April 1935, which applies only to farm property, is essentially different in that it sets up machinery to write down eventually debts in line with new economic conditions. The former Act is not repealed and continues indefinitely with respect to mortgagors not brought under the new law. The recent Act utilizes the Adjustment Commission and in addition sets up a Court of Review to which final appeals may be made.

Under the terms of the Rural Mortgagors Final Adjustment Act, a stay order prohibiting foreclosure or other proceedings against the indebted farmer may be issued by the Commission for a period of 5 years. A trustee is appointed who handles, and keeps a record of, the financial transactions of the farmer. During each year of the stay order a budget is prepared by the trustee in conjunction with the Commission. By this method, the debtor is provided with reasonable living and operating expenses, and, at the same time, maintains himself on his farm free from harassment by creditors. Excess income is paid out by the trustee with an established order of priority with respect to taxes, rent, and interest payments.

At the end of the 5-year period, the Act provides that the value of the property shall be determined. This value is found by capitalizing the net annual average income of the farm during the stay order. The Commission has wide discretionary powers, however, in varying this calculation with such factors as the relative efficiency of the farmer and the extent to which the farm was operated to full capacity. Liabilities in excess of

the basic value become unsecured debts and to the extent to which they cannot be satisfied with other assets of the mortgagor, are deemed to be discharged. The farmer is protected from foreclosure or creditor claims for an additional 5 years after the value of the property has been adjusted.

One apparent weakness of the law is that, in certain cases, adjustment of liabilities may leave the property mortgaged up to the new value and consequently may afford the farmer with little opportunity to accumulate an appreciable equity in the ensuing 5-year period. Objections to the act, however, have referred mainly to the reduction of debt claims.

Government Policy in Relation to Agricultural Marketing

The pre-war marketing policy

The Dominion Government took no active part in the marketing of farm products prior to the World War. For some 30 years or more prior to that event the trend of prices was generally upward. Since the price situation was fairly satisfactory, producer interest centered largely around the problems of production. While the dairy and meat industries were growing rapidly, in comparison with the important position they were to assume in the War period and thereafter they were still in their infancy. Consequently, there was little or no organized farm sentiment favoring direct government assistance in marketing.

Nevertheless, in the pre-war period the Government was already prominent in social legislation. Farmers were already familiar with government land settlement, agricultural credit, labor arbitration courts, old-age pensions, and state-owned public utilities. The war precipitated the Government into the new field of agricultural marketing - an interest which it has never relinquished since that time.

The War Commandeer

A form of marketing control was established in the Dominion by the British and New Zealand Government during the war and for a short time thereafter, which was known as the "War Commandeer." Under this regime, foodstuffs were purchased at fixed prices by the New Zealand Government for the British Ministry of Food for exportation to the United Kingdom. The policy of the Government with respect to the control was regarded as a temporary program for the purpose of expediting food supplies in "winning the war."

Under the War Commandeer nearly all of New Zealand's exports were placed under control with respect to transportation, insurance, price, and ultimate distribution. In order to preserve as much as possible the existing marketing organization the various agents and merchants were used

to a considerable extent. During 1920, however, when the general price level was rising very fast, considerable objection arose from several quarters over the continuance of control. It was held that regulation was hampering the return to a normal state of economic activity and preventing the price rise in controlled products commensurate with the rise in the general price level. Farming interests, generally, were strongly in favor of the return to pre-war conditions, or rather to freedom from controlled marketing, since it was felt that commodity prices would rise still higher.

By 1921 the last of the commodity controls, that on meat, had been relaxed. This development coincided with a decline in meat prices on the British market. Other commodities which formerly had been controlled also sold at low prices in the post-war depression period of 1921-22. Thus, New Zealand agriculture was returned to a non-control basis but not to pre-war conditions. The unfavorable situation was accentuated by the increased production of the war period and by increased competition in the all-important British market.

The old form of marketing had been hardly reintroduced before it was subject to severe criticism from farming interests. Wartime control was associated with high prices and the post-war relaxation of control with low prices. In a short time a movement favoring some form of government assistance in marketing began.

The post-war control boards

While the serious plight of the farmer became a subject of national interest, the most active farm groups, the meat and dairy producers, held meetings to discuss the problem. There was considerable feeling, particularly in the meat industry, against "trusts" operating to the detriment of farmers and, in general, practically all established marketing agencies came under suspicion. Late in 1921, the Meat Export Control Act was passed. The view-point with respect to the cause of the unfavorable position of the farmer is indicated in the preamble to the Act, which reads in part, "Whereas, the economic welfare of New Zealand has lately been adversely affected by reason of a reduction in the net returns receivable by persons engaged in the business of the production of meat for export, such reduction being attributable in part to falling prices and in part to the charges payable in respect of freight and other services... and that the public economic welfare will be promoted by the establishment of a Board of Control with power to act as the agent of the producers in respect to the preparation, storage, and shipment of such meat beyond New Zealand..." The above quotation indicates the predominant farm viewpoint at that time which held that government regulation of the marketing processes was in the public interest, since producers were not receiving their fair share because of allegedly unreasonable charges for handling and marketing their products.

From 1922 onward the control board movement spread to other commodities. The dairy industry began a movement for a similar board almost immediately after the passage of the Meat Control Act. A compulsory pooling system was at first suggested. Since the Government refused to agree to this approach, a bill was introduced in Parliament along the lines of the Meat Board. Such strenuous opposition developed that it could not be enacted immediately and, consequently, did not become law until August 1923.

In 1924, a Fruit Export Control Board was established, largely as a result of the precedent established by the Meat and Dairy Boards. A considerable export trade in apples and pears had developed with the United Kingdom in the immediate post-war years. To stimulate this trade, the Government had guaranteed a minimum return of 1d. per pound (about 2 cents per pound) on all apples and pears exported. The New Zealand Fruit Growers Federation felt that the continuance of the subsidy was uncertain and that marketing assistance should be supplied through a Board with considerable power. Some districts of New Zealand were opposed to marketing control and the law was framed so that these districts were exempt.

Shortly after the inauguration of the Fruit Control Act, a similar board was set up for honey by the Honey Control Act. Other minor boards followed in later years for wheat and flour, poultry, and tobacco, and for a short period a control board for kauri-gum was established.

Organization and operation of the boards: The organizations of the Control Boards are in general similar. The Meat Producers' Board consists of eight members, two of whom are appointed by the Governor-General on the advice of the Minister of Agriculture; five are elected by the frozen meat producers, and one is appointed by the commission agents. The members hold office for 2 years. The method of election for the producers' members is indirect as the Dominion is divided into districts which elect representatives who in turn elect the members of the Board. The Dairy Board was reconstituted after 1926 so that at present there are several members holding office for 3 years. Three are appointed by the Governor-General, and four are elected directly by districts by the creamery companies, with voting power for the purpose of electing members determined by their output.

Prior to the revision of the Dairy Board in 1926, the functions and powers of all the boards were almost identical. They were empowered to exercise "absolute" or "limited" control over the marketing processes of the commodity. "Absolute control" meant that the Board assumed the responsibility for the whole marketing process so that competition among exporters was eliminated. For example, the Meat Board has the power to take over the product as soon as it is ready for export, to grade, handle, pool, store, insure, ship, and sell the meat under such conditions as it deems fit, and to remit the net proceeds to the producer. The Board, however has never exercised this power. Instead, it has confined its activities

to a limited field. Among these activities are the regulation of shipments to the United Kingdom, supervision of grading and inspection, negotiation for shipping contracts, statistical services, and research.

With the exception of the 1926-27 season, the Dairy Board has also assumed limited control. The Dairy Board in that season assumed absolute control and undertook the responsibility of all export sales. The Board established an office in London and operated in conjunction with private British agents and distributors. Sales were made to the agents and distributors at prices fixed by the Board for the British and other markets. This form of control was strenuously opposed by the agents and merchants, both in the United Kingdom and in New Zealand. Opposition also increased among some producers who were able to remove from the Board several members favoring absolute control. By March 1927, the unsold stocks of butter in London were very high and the Board decided to abandon absolute control. While the Board's price-fixing methods came to grief partly because of opposition both in the United Kingdom and New Zealand, it seems quite probable that the outcome would have been much the same sooner or later, since New Zealand supplied only about 25 percent of the British market and imports of dairy products from other sources were increasing.

The Fruit Control Board operates under absolute control. This situation arose, however, out of the fact that the Fruit Growers Federation had been pooling and selling fruit prior to the establishment of the Board and consequently absolute control made comparatively little change in their operations. In fact, the Federation operates as the agent of the Board under the present law.

The Honey Control Board has exercised absolute control over the export of this comparatively minor agricultural product. Most of the beekeepers have been organized for many years in a blending and marketing cooperative which is now closely associated with the Board. Exporters are compelled to consign to an agent of the cooperative in the United Kingdom. There has been considerable dissatisfaction with the operating methods of the Board.

The Wheat Purchases Board was established in January 1933 for the purpose of assuming absolute control of all wheat produced in New Zealand. The position of this board is somewhat different from the others, since in some years the Dominion is on an import basis. The Board operates a wheat pool and in years of exportable surpluses dumps wheat in the export market in order to maintain the domestic price. The scheme operates in conjunction with the sliding-scale tariff on wheat and flour which is varied so as to maintain the domestic price above world prices in years when domestic production is not sufficient for domestic requirements.

Generally speaking, the Control Boards have attained a considerable measure of success. It should be noted, however, that the meat and dairy

boards, which were the most important from the standpoint of the size of their respective industries, had "limited" control over marketing. Marketing through agents and merchants was not interfered with, and activities were confined to the relatively narrow field of regulation of the flow of supplies, arranging freight and insurance contracts, marketing information, advertising, and research work. All the Boards have considerable claim to records of efficient operation and reduction in marketing costs for the farmer.

The significance of the Boards in the depression period was overshadowed by other Government activities which influenced commodity marketing. Consequently, in examining government marketing assistance in the depression period, emphasis must be placed more upon the commercial relations of New Zealand with the United Kingdom than upon the functioning of the control boards as such.

Government assistance to marketing during the depression

Coupled with the disastrous effects of falling prices after 1929 on farm income, several marketing difficulties appeared which threatened to reduce the importance of the British Market for New Zealand's exports. Probably the most important of these factors was the reversal of Great Britain's long established low tariff or free trade policy. Moreover, the British Government indicated its decision to protect home agriculture, presumably at the partial expense of Empire imports, by passing the British Agricultural Marketing Act. Coincident with this situation, the trade barriers erected in other world markets had led to the dumping of agricultural surpluses in the United Kingdom, thus increasing competition with New Zealand supplies.

At the Imperial Economic Conference which convened at Ottawa, Canada, for the purpose of considering intra-Empire trade relations in July-August 1932, the New Zealand government sought not only tariff preferences in the British Market but quantitative limitation on foreign supplies. While the New Zealand delegation was able to obtain freedom of quantitative restriction from New Zealand exports to the United Kingdom, it was unable to obtain completely its request for regulation applicable only to non-Empire imports. Such action, it was feared, would jeopardize British exports to foreign countries and also endanger the service of important British foreign investments. Consequently, the British delegates brought forward a general principle for Empire trade relations to the effect that the British home producer should be given first consideration, the Empire producer second, and non-Empire third.

For meat, the United Kingdom proposed a plan of quantitative regulation, and this was agreed to in a modified form. British imports of South American mutton, lamb, and frozen beef were to be reduced, by progressive quarterly cuts, to a volume 35 percent below the volume for the

- - - - -

year ended June 30, 1932; and foreign chilled beef held to the volume of that year. Furthermore, the United Kingdom agreed that no further restrictions should be placed on Empire meat prior to July 1934. The United Kingdom gave a formal statement to Australia and New Zealand to the effect that "a policy will be adopted that will have for its definite objective the two-fold purpose of raising the price of meat to a remunerative level and of progressively increasing the share of the Dominions in the United Kingdom market."

In regard to quantitative regulation of dairy products and eggs, the other important group of commodities in which New Zealand was interested, the United Kingdom reserved the right after 3 years either to impose a duty while maintaining the margins of preference or to bring the products under a comprehensive scheme of quantitative regulation.

With respect to preferential tariff treatment, the United Kingdom agreed to place a duty on products of foreign origin, including butter (15s. per cwt.), cheese (15 percent ad valorem), apples and pears (45s.6d. per cwt.) and dried fruits, eggs, milk products, and barley. In return New Zealand agreed to maintain a margin of preference on all British goods and in addition reduce the tariff against a limited number.

Assistance to meat marketing: The general plan of quantitative regulation of meat supplies from the Dominions was for the purpose of regulating the flow of supplies to avoid glutting the British market. Moreover, the Ottawa Agreements definitely established the policy of a regulated expansion of imports of Empire meat. Thus, the quotas established for meat imports and the estimates of future shipments supplied by the Dominions were voluntary agreements for the orderly marketing of supplies rather than quantitative restrictions on imports.

In the months immediately succeeding the Ottawa Agreements, meat prices continued to fall despite the regulation of shipments. After some negotiations and by voluntary agreement, Argentine exports of mutton and lamb were reduced 20 percent below the Ottawa figures and chilled beef 10 percent. Australia and New Zealand also agreed to curtail their shipments to the United Kingdom, and for a time meat prices rose.

On May 1, 1933, the United Kingdom signed an agreement with Argentina which provided that imports of chilled beef were not to be restricted below the quantity imported in the year ended June 1932 except insofar as it was necessary "to secure a remunerative level of prices in the United Kingdom market." Argentine supplies of chilled beef could be reduced as much as 10 percent without reducing Empire imports. Any reduction in excess of 10 percent, however, had to be accompanied with a corresponding reduction of Empire supplies. Similarly, frozen beef, mutton, and lamb were not to be restricted below the Ottawa year (1932) figures unless Empire imports were restricted also.

From July 1934, the United Kingdom had reserved the right to impose quantitative limitations upon meat shipments from New Zealand. Since that date, however, mutton and lamb, the main meat exports, have not been restricted by quotas. The comparatively less important beef exports from New Zealand were brought under more strict, although still voluntary, regulation. Since 1934, beef quotas have been established by quarterly periods. The short-time periods made regulation of supplies difficult for the New Zealand Meat Producers Board because of the uncertainties of shipping and storage requirements. The Board has complied fairly closely with the quotas and in some periods withheld considerable quantities of meat from shipment. This attitude contrasts with that of Australia, where little effort, apparently, was made to comply with the wishes of the United Kingdom.

The possibility that the United Kingdom might exercise its powers under the Ottawa Agreement after July 1934 with respect to placing a tariff or a restrictive quota upon either meat or dairy imports has caused considerable apprehension in New Zealand. Producers' fears seemed for a time realized when the New Zealand Government received the cabled proposal of the British Government on February 13, 1935, regarding a long-term meat policy. Since the British domestic beef industry had improved very little from the low point of the depression, the British Government proposed that a duty should be collected on all meat imports (with preference to the Dominions) and the proceeds applied to the assistance of the domestic industry. Under this scheme the exporting countries would be left free to regulate their exports to the United Kingdom market themselves.

This proposal aroused strenuous opposition among New Zealand producers. The official reply pointed out that such a levy would fall more heavily upon the New Zealand industry than that of any other country supplying the United Kingdom market. Furthermore, the mutton and lamb producers of New Zealand would be heavily penalized "to assist in the solution of what is essentially a beef problem." Largely as a result of the strong objections to the plan from New Zealand, an agreement was concluded in July 1935 which exempts New Zealand and the other Dominions from any levy on mutton and lamb for a period of 3 years. Voluntary regulation of supplies was continued, however.

Assistance to marketing of dairy products: While the Ottawa Agreements secured free entry into the United Kingdom for New Zealand dairy products for at least 3 years, prices of dairy products, particularly those for butter, continued their downward trend from 1929. The low prices, however, did not react to curtail production; in fact, improved farming methods increased production considerably. In spite of a 65-percent increase in butter production between 1929 and 1935 there was a 24-percent decline in total value, with 1932 and 1933 the lowest years.

- - - - -

Dairy producers of New Zealand had requested on several occasions through the Dominion Government that the British Government restrict the imports of foreign butter into the United Kingdom. In January 1933, the British Government indicated its willingness to comply with this request if all sources of supply were brought under regulation. Furthermore, the United Kingdom offered to restrict foreign imports twice as much as those from Empire sources. The New Zealand government rejected this offer since the New Zealand dairy industry for many years has objected to any form of quantitative regulation. It was generally felt by dairy producers that such regulation meant restriction of production in New Zealand which, as a young country still developing, would result in reduction of markets and stagnation of the industry.

In 1934, butter prices declined still further in the British market and many producers reluctantly had come to believe that a quota system of regulated marketing should be instituted as a measure to improve the unremuneratively low prices. While the New Zealand producers were assembled in March 1934 to determine some scheme to assist the industry from its unfavorable position, the British Government indicated that quantitative regulation was no longer an issue. The United Kingdom had in the meantime intervened in the interest of its own domestic producers by instituting a marketing scheme for milk which encouraged its production and subsidized the producers of cheese.

The Ottawa Agreement, insofar as it applies to the free entry of dairy products into the United Kingdom, expired in August 1935. A trade agreement with Denmark which was renewed June 20, 1936, precluded a tariff, however, since the agreement guaranteed that a duty could not be imposed higher than that imposed under the Ottawa Agreement. This action, in effect, guarantees free entry for Dominion products since the duty is the same as the margin of preference. But the possibility of a quantitative restriction is a question which is still viewed with considerable apprehension in New Zealand.

While it is difficult to determine the extent to which Government measures have contributed, New Zealand has made considerable progress toward agricultural and national recovery. The value of total exports in 1936 in terms of New Zealand currency amounted to £56,700,000 as compared with £34,900,000 in 1931. Index numbers of export prices indicate important price recoveries with farm export prices 132 in 1936 as compared with 110 in 1932, and 142 in 1939 (average 1909-1913 = 100). Recent statistics indicate a considerable reduction in the disparity between farming costs and export prices.

Guaranteed Prices

By 1935, a considerable improvement in export prices for farm commodities over the extremely low levels of 1932 and 1933 had taken place. Dairy prices, however, continued at relatively low levels. A start had

been made to aid the industry under the Agriculture (Emergency Powers) Act of 1934 which revamped the New Zealand Dairy Industry Control Board into the New Zealand Dairy Board with power to regulate and control production. Operations under this revision had not gone very far, however, when the defeat of the Coalition Government in November 1935 brought the Labor Government into power with a new method of approach to the problem of dairy marketing. This method is embodied in the Primary Products Marketing Act of 1936 which guarantees prices to the producer.

Briefly, under the new scheme the Government became the owner of all butter and cheese exported from the Dominion after August 1, 1936. At the port of exportation the farmer is paid a fixed price through his creamery or factory. The produce is sold by the Primary Products Marketing Department, a Government agency under the control of the Minister of Marketing, and the proceeds held in the Dairy Industry Account. It should be noted, however, that no attempt is made to fix the prices at which the produce is sold by the Government. One of the fundamental ideas of the scheme is that the proceeds from the sale of the produce during periods of high prices will balance deficits incurred in periods of low prices. Thus, if the prices realized do not meet the amount paid out to farmers as a guaranteed price, the deficit remains as an overdraft of the Dairy Industry Account held by the Reserve Bank to be offset by any surplus realized in future years.

Basic prices announced for the 1936-37 season are 117s.3d. per cwt. (about 21 cents per pound) for butter and 63s.7d. per cwt. (about 11 cents per pound) for cheese. These prices are said to have been determined by the average butter-fat return over the past 8 or 10 years plus certain allowances. For future years the law lays down some general principles with respect to the very important point as to where prices should be fixed. Relevant passages of Section 19 of the Act read as follows:

"In fixing prices under this section in respect of dairy produce exported after July 31, 1937, regard shall be had to the prices under this section in respect of dairy produce exported before that, and to the following considerations, namely:

- (a) The necessity in the public interest of maintaining the stability and efficiency of the dairy industry.
- (b) The costs involved in the efficient production of dairy produce.
- (c) The general standard of living of persons engaged in the dairy industry in comparison with the general standard of living throughout New Zealand.
- (d) The estimated cost to the Department of marketing the dairy produce concerned, and also the cost of the general administration of this Act.
- (e) Any other matters deemed to be relevant."

It is apparent from this section that the Act provides wide latitude in the determination of prices. The following section, however, liberalizes the interpretation of price determination still further. It reads:

"Due regard having been paid to the several matters mentioned (in the above section), the prices fixed in respect of any dairy produce exported after July 31, 1937, shall be such that any efficient producer engaged in the dairy industry under usual conditions and in normal circumstances should be assured of a sufficient net return from his business to enable him to maintain himself and his family in a reasonable state of comfort."

Moreover, such terms as "efficient producer", "usual conditions", and so forth will not be interpreted by the courts, inasmuch as the Act specifically prohibits the courts from challenging the guaranteed price as fixed by the Government.

It is obvious that such a plan is beset with a multitude of potential difficulties. Who can forecast the course of future prices with sufficient accuracy to balance losses against surpluses, as the scheme proposes? If guaranteed prices are set above market prices in one period, will farmers accept guaranteed prices below market prices in another period in order that the Government may recoup its losses? Moreover, it is possible that individual farmers for whose benefit the deficit was incurred are not necessarily the same farmers who would be required to make up the deficit by receiving guaranteed prices less than market prices. Then again there is the problem of increased production which a guaranteed price might easily stimulate. These problems and many others confront the administration of the guaranteed price scheme.

Implications of guaranteed price policy

While the Primary Products Marketing Act now covers only dairy products, provision is made that other commodities may be brought under the law. Moreover, the Labor Government proposes as a matter of policy to guarantee prices on all farm products. The title of the Act, itself, expresses the policy and social viewpoint of the Labor Government. It reads, "An act to make better provision for the marketing of dairy-produce and other primary products so as to ensure for the producers an adequate remuneration for the services rendered by them to the community."

The Government expects by guaranteeing prices to avoid the wide fluctuations in farm income which have been in the past particularly serious. Furthermore, it hopes to avoid speculative land markets and the recurrence of the farm mortgage situation which became so burdensome in the recent depression and which required such drastic measures to alleviate. As evidence of the trend toward coupling guaranteed prices with other phases of the New Zealand economy, in August 1936, there was introduced in Parliament the "Mortgagors and Lessees Rehabilitation Bill" which revalued farm land based on the guaranteed price. Prices are related also to the Government's labor policy. With the announcement of the amount of the guaranteed prices for dairy products, an agreement was reached on the working conditions and the relation which wages of dairy-farm workers should bear to prices.

The new Government policy opens up important problems relating to the export market. It involves an attack on the problem of enlarging the foreign markets, other than British, for New Zealand products. In fact, the reorientation of foreign trade would appear to be an essential part of the new policy if the Government expects to expand the export markets for dairy or other products, particularly if production increases. In any event the Primary Products Marketing Act recognizes this situation, and states the procedure to be followed with a view to the promotion of reciprocal trade. Section 13 states that "it shall be one of the functions of the Minister (of Marketing)...to enter into negotiations...with accredited representatives of the Government of the United Kingdom or any other part of His Majesty's Dominions, or the Government of any other country."

The section makes also a significant statement of the principles to be followed in negotiating trade agreements. It reads: "The basis of any such agreement shall be that in consideration of the purchases by the Government of any country of any primary products of New Zealand, the Government of New Zealand will undertake to arrange through the Reserve Bank of New Zealand that the whole or a substantial part of the financial credits thereby established in such country will be utilized for the purchase of approved goods or classes of goods being the produce or manufacture of that country." Taken by itself, this section plainly establishes bilateral clearing arrangements as a foreign trade policy. If such a policy should be actively pursued, it would react unfavorably against those countries which export more merchandise to New Zealand than they import from that country. Among the countries in this group are the United States, Australia, and Canada.

.
.
.
.

RECENT DEVELOPMENTS
IN
FOREIGN AGRICULTURAL POLICY

- - - - -

GERMAN LAND OWNERSHIP LEGISLATION TIGHTENED

Governmental powers to control the sale and transfer of agricultural land in Germany were materially strengthened by a new law promulgated on January 26, 1937, according to a report from Vice Consul Henry P. Leverich at Berlin. The basic objective of the new legislation is to create a greater feeling of security and permanence on the part of the land owner and thus promote the success of the drive for maximum agricultural output.

The law is especially designed to check the sale of farm land for speculative purposes, to discourage absentee ownership, to facilitate the purchase of land for agricultural production, to assure owners a fair price for such property as they may wish to sell, and to discourage proprietorship of farm land by persons of "non-Aryan" blood.

The law of January 26, 1937, is by no means new in principle. In fact, it is based upon a law of March 15, 1918, the purpose of which was also to regulate the transfer of agricultural property. The original law was intended mainly to combat the speculative activities of war profiteers who, as a safeguard against the possible unfavorable outcome of the war, were investing their war profits in real estate, a large proportion of which was farm land. Since the majority of these investors were in no sense farmers, the land was frequently neglected and total agricultural production was unfavorably affected.

Farms falling under the Entailed Estates Law of September 29, 1933, and which comprise about one-third of Germany's agricultural area, are not affected by the new law.

The law of January 26, 1937, requires official approval for the sale or transfer of all agricultural property in excess of 2 hectares (5 acres). It is expected that this will check the recent tendency to speculate in land.

Permits for the sale or transfer of farm land are not necessary in the event that one of the parties involved is a Government agency, the National Socialist Party, the Reich Railroad, or the Reich Auto Corporation. The requirement also is waived if the transaction takes place between husband and wife or between close relatives.

In general the law is intended to safeguard the interests of the farmer, assuring him of an opportunity to sell his land at a return commensurate with the energy he has expended in its cultivation, or, if he wishes to buy land, to do so at a fair price. The general provision against granting agricultural land transfer permits, if such transfer is considered injurious to the public interest evidently allows the authorities great leeway of action. According to the general interpretation placed upon it in the press and elsewhere, this clause will be used to prevent absentee ownership of land or any other circumstance which might result in the failure to cultivate the land to the fullest extent possible.

.

FRANCE GUARANTEES QUALITY OF FRENCH WINES

The Government of France has recently adopted legislation to protect producers of famous French wines and consumers at home and abroad from competition of wines that may be mistaken for the French product, according to a report to the Bureau of Agricultural Economics from its office in Paris.

To accomplish that objective the Government will restrict the production of wines bearing certain "controlled names" to specified regions and will prohibit the movement or shipment of such wines unless accompanied by an official certificate guaranteeing that the product is a "fine wine" and that it is entitled to the use of the "controlled name" specified on the label.

A "National Committee for Names of Origin" has been established to make recommendations to the Government as to regions in which wines bearing "controlled names" may be produced and the methods to be used in producing them. The Government in turn has issued decrees in accordance with those recommendations. These decrees permit the movement and sale of wines under "controlled names" only when produced in specified areas in accordance with definitely specified rules and when the labels bear a statement guaranteeing that the wines are of true quality.

Experts appointed by the "National Committee for Names of Origin" are stationed in the vineyards. They give advice to producers and guard against abuses that might jeopardize the quality of the wine that is to bear the "controlled name." Most of the control over production methods and the use of names of origin is exercised at the place of production. Constant supervision, however, is exercised over the movement of the approved wines from the place of production to the consumer.

No wine bearing a "controlled name" may be moved from its place of production without a certificate granted by the Government. Such movement certificates are printed on green paper. When the wine is intended for export, the certificates carry a detachable part giving the

"controlled name" of the wine exported and the numbers and marks of the barrels and cases. The detachable part is removed by the customs authorities and returned to the exporter. No wine bearing a "controlled name" may be exported unless it bears this double or detachable movement certificate.

In order to make possible the exportation of high quality old wines produced before the enactment of the new law and held in storage, a special commission is to be set up which will issue green certification labels providing the wines in question possess the quality required by the specific texts of the labels for each "controlled name."

.

NEW LAND TENURE LAW IN COLOMBIA

A translation of the Spanish text of a new land ownership law in Colombia, which became effective on December 30, 1936, has been received in the Bureau of Agricultural Economics from the American Minister in Bogota, Mr. William Dawson.

Under the new law, all rural lands "possessed" by private individuals are presumed to be private property and not public lands. "Possession", however, is defined as consisting in the "economic exploitation" of the land through "positive acts consistent with ownership", such as planting or seeding, use for livestock, forestry, or other acts of equal economic significance.

All rural property not possessed in this sense is presumed to be public land and to belong to the Nation. This presumption can be overcome, however, either by the presentation of an original and still valid grant by the State or by the presentation of registered titles granted prior to the date of the law.

The law also contains provisions protecting the rights of those who "in good faith" settled on land believed to have been the property of the State provided they have cultivated such land or used it for livestock grazing continuously over a period of 5 years prior to the enactment of the law.

An important provision of the law is that whereby all rural lands automatically revert to the State unless "possession", as defined by the term "economic exploitation", has been exercised continuously for a period of 10 years.

The law prohibits the cutting of forests that conserve or protect the flow of water. It also authorizes the Government to designate zones within which forests shall be preserved and replanted for the purpose of

conserving or increasing the flow of water. Moreover, the Government is authorized to regulate the industrial utilization of forest products in general and to designate forest reserves.

Finally the law exempts from its application all lands where mining activities, such as oil production, may prevent the economic exploitation of the land as defined in the Act. The Government, however, will determine and definitely locate each area falling under this provision of the law.

.

ARGENTINA REDUCES PRODUCTION OF WINE GRAPES

For several years one of the principal problems facing the producer of wine grapes in Argentina has been overproduction, according to a report from Vice Consul Albert H. Cousens, Jr., in Buenos Aires. This situation has been particularly acute in the grape-producing districts of the Provinces of Mendoza and San Juan and in the Territory of Rio Negro.

Previous legislation providing for market supporting measures had failed of its objective. The new law provides for the outright destruction of vineyards so as to remove from production 220,000 short tons of wine grapes. To accomplish that objective, the Federal Executive through the intermediary of the Wine Board is ordered to purchase sufficient vineyards in full production in grape producing districts to eliminate the production of the 220,000 tons of grapes specified.

The probable distribution of this purchase, according to the report, will be as follows: Acreage yielding 143,000 short tons of grapes in the Province of Mendoza; acreage yielding 50,000 tons in the Province of San Juan; acreage yielding 16,000 tons in the Territory of Rio Negro; and an acreage yielding 11,000 tons in other grape producing districts.

Producers may sell their vineyards to the Wine Board at stipulated prices. The land thus acquired will pass into the public domain and will be divided into parcels of not more than 5 hectares (12 acres) each. This will be sold to farmers for the cultivation of crops other than grapes. It is understood that the restriction as to the non-cultivation of grapes on such land is limited at present to 5 years. Not more than one parcel (12 acres) can be acquired by any one family. The sale price will range from 500 to 1,000 pesos (\$164 to \$328) per hectare and may be paid in annual installments.

.

- - - - -
SOME RECENT SOVIET DECREES AFFECTING AGRICULTURE

Several important decrees affecting agriculture in the Soviet Union were promulgated by the Soviet Government on the eve of the spring sowing campaign. A decree of the Council of Peoples Commissars of U.S.S.R. and the Central Committee of the Communist Party, dated March 20, 1937, relieved collective farms and individual peasant farmers throughout the Union of arrears in the grain tax in kind for 1936. Moreover, by a decree of March 23, 1937, concerning contracts for delivery of flax and hemp in 1937, growers were excused from fulfilling contracts with respect to the undelivered quantities of flax fiber of the 1936 crop. The return of the credits advanced to the growers on such undelivered flax is postponed until November 15, 1937. While no official explanation was given, the new measures were adopted presumably because of the severe drought which affected a large agricultural area in the Soviet Union in 1936.

The decree of March 20 ordered a reduction in the payments in kind for services rendered to collective farms by government machine-tractor stations in the case of cereals and sunflower seed. Whereas formerly 8 percent of the grain threshed by the machine-tractor stations and 11 percent of the grain harvested by their combines were collected by the stations, the charges are now reduced to 7 and 9 percent, respectively.

Charges for spring plowing also have been reduced. Formerly these varied from an equivalent of 0.15 bushel per acre (when the officially estimated acre yield was less than 4.5 bushels of 60 pounds per acre) to 2.2 bushels per acre (when the acre yield was 19 bushels or more). Under the new schedule the spring plowing charges will range from 0.13 to 1.9 bushels per acre for similar yields.

For the performance of the whole set of field operations two schedules of payments are established, depending upon whether or not combines are employed for harvesting. When the latter are used the charges range from 0.13 to 1.9 bushels per acre for the yields specified above in addition to 9 percent of the grain actually threshed by the combines. When combines are not employed the charges will range from 0.19 to 2.5 bushels per acre plus 7 percent of the grain threshed by the machine-tractor stations. For a general discussion of machine-tractor stations see *Foreign Agriculture*, January 1937, p. 19.

New regulations have also been promulgated with respect to credits for the purchase by collective farms of mineral fertilizers. The Government has been encouraging increased use of mineral fertilizers with a view to increasing crop yields. It was found, however, that large quantities of fertilizers have accumulated in warehouses or in railway stations (sometimes lying in the open) without being delivered to collective farms.

It is claimed that the unwillingness or inability of the collective farms to purchase the fertilizer was due to the fact that they had to pay 50 percent of the price in cash, which was difficult for many of them.

It has been ordered, therefore, that for fertilizers to be used for technical crops except cotton, the collectives need pay only 20 percent of the cost in cash. Half of the remainder is to be paid after the marketing of this year's crop and the other half after the marketing of next year's crop. In the case of fertilizer used for grain and tame hay, the cash payment is set at 10 percent, with 40 percent of the remainder to be paid after marketing of this year's crop and 60 percent after the marketing of next year's crop. For fruit trees the cash payment is 15 percent, with 45 percent of the balance to come due at the end of the present crop season and 55 percent at the end of next crop season. For cotton the cash payment is 75 percent, and the balance is payable after the marketing of the current crop. The collectives are to pay 3 percent interest on the credits for fertilizer to be retired at the end of the current season and 4 percent on the portion to be retired at the end of the next crop season.

.

 . . .
 .

